

# PERFO INSTALLATION GUIDELINES - AIRFIELDS

## 1. Options for installing PERFO

There are various options for the installation of the PERFO ground reinforcement system, depending on the application and prevailing ground conditions.

## 2. Is ground preparation required?

In most cases, no ground preparation or foundation is required for runways, taxiways, hard standings and aprons where aircraft weighing up to approx. 2 tonnes are involved, in some cases also heavier aircraft. In extremely soft, wet or uneven areas, some preparation or foundation work may be required. We can advise you on the appropriate preparation.

### 3.a. Installation on existing grass surface

When PERFO is to be laid directly on the existing grass surface, the grass should be cut as short as possible beforehand. Small undulations or ruts should be levelled out using top-soil or a sand/soil mixture and compacted down. **Installation should only be attempted when the ground is soft enough to ensure the sections can be rolled into the surface easily.** The PERFO sections are then laid out in position and clipped together using foot pressure. If a roller is to be used, no more than 3-4 rows of Perfo sections should be laid in the intended direction of rolling before commencing with rolling (see below). If the ground below is very soft, the tiles can be supported using a wooden or metal plate or strip, to help the clipping process.

### 3.b. Preparing ground before installation

If the ground is very stony or if the top turf has been removed (to facilitate levelling for example), a 5-7 cm layer of soil or a soil/sand mixture should be spread over the area to which PERFO will be applied. Grass seed can be mixed in with the soil/sand. This layer should then be compacted. The PERFO sections are laid onto the thus prepared surface and linked together using foot pressure on the clips, supporting them with a flat plate or strip as required.

## 4. Rolling/pressing PERFO sections into the ground

The ideal method to be used will depend on the prevailing ground conditions, size and shape of the area to be installed. On very soft ground (eg. after levelling/grading), a heavy duty compactor plate (300-500 kg) should be used initially. On grassed areas, less soft ground and particularly large areas, a tandem vibrating roller (approx. 2.5 to 5 tonnes) is the better option. **In the case of a roller, it is important that not more than 3-4 rows of Perfo sections are laid in front of the roller, otherwise sections may bunch up and form a hump in front of the roller, making the rolling process difficult.** At least 1 row should be left unrolled, to which up to a further 2 rows of Perfo sections can be attached (see diagram).

The individual sections are specially designed with expansion tabs to allow for expansion during hot temperatures. Therefore, care should be taken when rolling or pressing the PERFO sections into the ground to ensure the tiles are not pushed completely together and that a small gap between each tile remains. The installed area can be rolled over at least 4-5 times. **The sections must be pressed into the ground completely for correct installation and to give the optimum load bearing capabilities.** After initial installation, the PERFO sections should be checked regularly to see that they remain flat and plane with the surface, especially after a ground frost or very hot temperatures. They can be rolled or pressed in again if there has been some initial movement. Once sufficient grass has grown back through the tiles, this will further strengthen the bond between the PERFO sections and the ground below, which should prevent further undulations occurring.

**Note:** if the tiles are not laid correctly or laid against immovable objects such as posts or curbs which could prevent expansion, this could result in small undulations forming during hot weather or extreme frosts.

## 5. Removing or repositioning individual tiles

Individual tiles can be separated from neighbouring tiles, by simply levering out the clips from above with a medium-sized flat screwdriver (see attached photo).

Disclaimer:

As ground conditions, installation procedures and intended use of the PERFO system vary from site to site, we cannot accept any guarantee of suitability of the system for a specific application. For this reason we also cannot accept any liability resulting from use of the PERFO system. We recommend that adequate trials are undertaken by the customer, to ascertain the product's suitability for the particular application in question.

## PERFO INSTALLATION GUIDELINES - AIRFIELDS



Sections arranged on the ground



Perfo sections clipped together using foot pressure on the clips



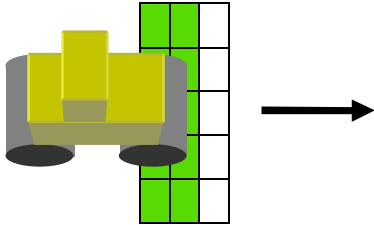
After about 3-4 rows are laid out, they should be rolled in leaving the last row unrolled.

### Recommended method for rolling-in PERFO sections

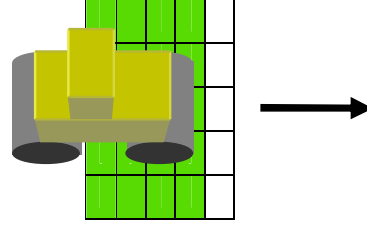
Rolled sections

Unrolled sections

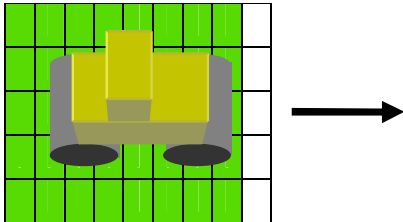
- 1 Perfo strip laid out 3 sections deep & first 2 sections rolled in, leaving last row unrolled.



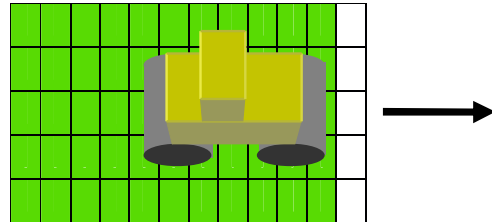
- 2 Max. 2 further rows of Perfo sections added and rolled in leaving last row unrolled.



- 3 Continue to add 1-2 rows at a time and roll in always leaving last row unrolled



- 4 Large areas are progressively built up and rolled in, using this method



**Avoid running the edge of the roller directly over the joints between tiles**



**Individual tiles can be removed by levering open clips with a screwdriver**

