

Type 5: Pipe drained with slit drains

Supplementary slit drains will significantly improve the removal of water into pipe drains. Basically the construction mirrors that of a pipe drained system with the addition of a series of narrow, commonly 50 mm wide, sand and gravel filled trenches excavated across, and into the porous backfill of the lateral drains. Slit drains are typically 250 - 350 mm deep and installed at 0.5 - 2.0 m spacing.

Heavy top dressings of suitable sand are essential for the successful construction and management of slit drained pitches.

The dressing should be applied immediately after installation of the slits and subsequently reapplied as part of routine maintenance works in the close season. This process will be necessary for at least three to five years following installation.

Each application of dressing should be in the region of 60 – 100 tonnes, depending on the size of the pitch.

A drawback of slit drains is that they can become capped and sealed over with topsoil, which can



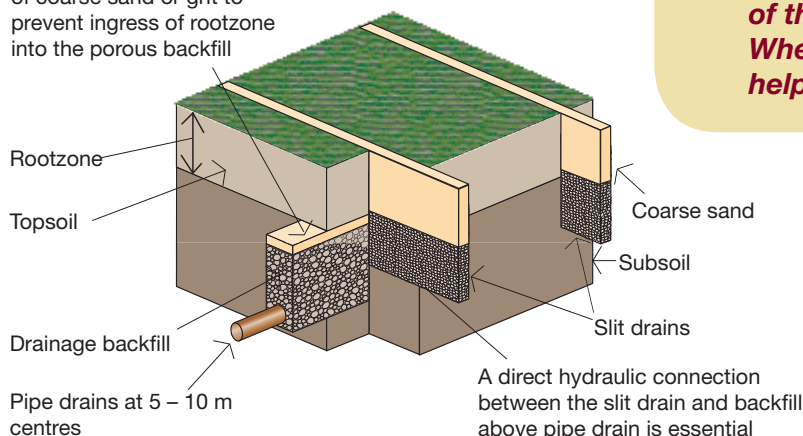
Combined pipe and slit drainage will significantly improve the drainage of most pitches

render them ineffective. Also, slit drains installed in clay soil can be prone to settlement in dry weather due to the clay shrinking on drying. They therefore require frequent topping up, particularly during the first year following installation, to prevent an uneven and possibly dangerous surface developing. It is for this reason that 'Type 3' constructions, comprising narrowly spaced sand grooves, are becoming the industry standard for improving the surface drainage of pitches.

Adequate maintenance is essential in order to produce and maintain a vigorous, dense sward.



Where coarse porous backfill material is used, it may be necessary to include a 50 mm deep blinding layer of coarse sand or grit to prevent ingress of rootzone into the porous backfill



Pipe drainage and slit drainage construction on cultivated topsoil

It should be noted that pipe drained surfaces with slit drains might:

- ***Be uneven during the first season.***
- ***Settle in the summer months due to shrinkage in clay soils. These must be monitored and filled with sand to maintain the safety and quality of the surface and the effectiveness of the drainage system. Where available, irrigation will help to reduce this problem.***