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Guide to Sports Ground Fencing

A Specifier's Guide

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Guide to Sports Ground Fencing

First Choice Solutions for Architects, Specifiers and Contractors



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A Specifier's Guide

Introduction



Sports ground fencing enables participants to enjoy sports without presenting a nuisance or hazard to neighbours. High-quality fencing also helps to project the right image to club members, visiting teams and the local community.

What many people do not realise is that there are numerous types of fencing available, as well as options to suit the sports being played and other local factors. Each application has its own unique set of requirements, so the optimum fencing varies from one sports ground to the next, and even between different areas at the same site.

This specifier's guide to sports ground fencing explains the fencing types and options available, and steers the reader towards developing a specification that will fulfil the performance requirements while taking into account costs, aesthetics and other factors.

Sports ground fencing achieves the following...

- Prevents balls straying, so maintains the flow of the game and avoids activities becoming a nuisance for neighbours or a hazard to road users.
- Prevents all but determined intruders from gaining access for unauthorised use of sports ground.
- Prevents access by animals such as dogs, foxes and rabbits that can damage and foul sports grounds.
- Enhances the appearance of sports facilities.
- Boundary demarcation.

Guide to Sports Ground Fencing



A Specifier's Guide

Aims and objectives

Before selecting a type of fencing it is important to consider what the requirements are. In some cases the primary consideration will be to prevent balls from straying from the playing area. This is the most common reason for installing fencing at grounds that host football, hockey, tennis, basketball and netball.

However, if there is a road adjacent to the sports ground then there is a risk that a stray ball could cause a traffic accident resulting in damage, injury or even death. Clearly the measures required in this situation are likely to be different from those where the only consequences are a break in play or a complaint from a neighbour.

Fouling and digging by dogs, foxes and rabbits can be a persistent problem at some sports grounds. Most fences extend down to the level of the playing surface or typically 25mm above it but, where animals are a problem, the fencing can be buried and set in a concrete cill to provide better protection. Although this is more expensive, it may only be necessary for a relatively small proportion of the total length of fencing.

Sports grounds represent a high investment in facilities and they require ongoing maintenance. To help minimise the cost of maintenance the normal practice is to restrict access to authorised users only. Out of hours it is therefore necessary to prevent access; fencing — together with suitably specified gates — can prevent or deter all but determined intruders.

Depending on the sports ground ownership, layout and location, the requirement may just be for simple boundary demarcation. This does not require high fencing, so in these circumstances it might be preferable to install lower-cost railings or low-level mesh panel fencing.

Where fencing will be subjected to repeated impacts from balls or players, as would be the case for a Multi-Use Games Area (MUGA), the fencing needs to be more robust and resilient than in areas where only occasional impacts are anticipated.

Whatever type of fencing is used, it is important that a clear view is maintained through the fence for spectators, supervisors, parents, teachers and others.



Guide to Sports Ground Fencing



A Specifier's Guide

Choosing the right type of sports ground fencing

Sometimes an area will be dedicated to one sport only, but today it is more likely that the facility will be a Multi-Use Games Area (MUGA) with, for example, tennis, hockey, soccer, basketball and netball played.

Sports ground fencing ranges in height from 2.4 to 5m overall and is supported by steel posts, with a lower rebound section up to 1.2m high and the remainder of the fence being of a different specification. For example, if welded wire mesh (weldmesh) is used, the rebound section will often use a 50x50mm mesh made from 8 and 6mm wires, while the upper part of the panel will have 200x50mm apertures formed from 8 and 6mm wires. Rebound fencing is preferable to rebound boards because it provides better visibility for viewing and security purposes, plus it is usually quieter when struck by balls. Depending on the sports being played, however, it may also be appropriate to install perimeter kickboards at the bottom of the fence.



Posts and panels are galvanised to protect against corrosion and have a tough, low-maintenance polyester powder coat applied to provide an attractive aesthetic finish. This coating is available in a choice of standard colours, or custom colours can be applied to special order. If football is to be played, goal recesses can be incorporated within the fence.

Two types of fencing are used for sports grounds, namely welded wire mesh and chain link. Welded wire mesh normally lasts longer, is more robust and presents a higher-quality appearance — though it is slightly more expensive. Rolled mesh systems such as chain link are likely to need periodic re-tensioning and repairs, so the total cost of ownership will be greater. Given the advantages offered by welded mesh, it is now unusual to find chain link specified for sports ground fencing.

If the sports ground is adjacent to a road, then it might be appropriate to increase the height of the fence, add netting above the fence panels, or create a net-covered roof to enclose the playing area.

To avoid the risk of players being injured by running into posts, these should be positioned on the outside of the fence, with low-profile clamping bars and fasteners on the inside so that this surface is as close as possible to being flush. Secure clamping, in combination with welded mesh in which every wire junction is welded, helps to minimise the noise generated when the fence is struck by a ball or player.

It is recommended that specifiers should consider incorporating a 'bolt hole gate' within MUGA fences so that anyone backed into a corner in a bullying situation can escape. Typically a bolt hole gate will be the height of the rebound fence and equipped with a spring latch release lock that can be operated from the inside only, and also a self-closing mechanism.

For facilities where fully-enclosing fencing is not necessary, spectator rails are often specified to separate the playing area from the viewing area. Spectator rails are available in a choice of styles and with a variety of infills to suit the application requirements and/or to match any fencing installed at the same site. A further option is to install spectator rails close to the playing area and higher fencing further back to contain stray balls and provide perimeter security for the sports ground.

Guide to Sports Ground Fencing



A Specifier's Guide

Gates

As with the fencing, sports ground gates are designed with external frameworks and hinges, and low-profile clamping bars and fasteners to reduce the risk of injury to players who come into contact with the gate during play. In addition, gaps between the gate and the surrounding framework are kept to a minimum. Gates should open outwards and provide a level of security that is at least as good as that of the adjacent fencing.

Planning approvals

Sometimes new or replacement sports ground fencing is covered by Permitted Development Rights and does not need planning permission, but it depends on the nature and scale of the works, as well as the location. However, whatever sports ground fencing is being considered, it is recommended that the local planning authorities are consulted. Sport England, in partnership with the Department of Communities and Local Government, has produced a helpful handbook, *Making a planning application - A guide for sports clubs* - see Useful Resources below.

The importance of correct installation

Any fence is only as good as its installation. Poorly installed fencing will be less robust and more likely to need repairs and maintenance earlier than would otherwise be necessary. In the worst case, poorly installed fencing could cause injury to players who come into contact with fasteners that have been installed incorrectly, for example.

Installing fencing is a skilled job and specifiers should be aware that some fencing contractors hire unskilled labour on a project-by-project basis, rather than retaining teams of properly trained installers.

Specifiers are strongly recommended to use fencing contractors that are accredited to ISO 9001:2000. Other accreditations to look for are CHAS (Contractors Health & Safety Scheme), membership of the Constructionline database, registration with the SafeContractor scheme, and certification from Achilles BuildingConfidence.

Maintenance considerations

It is important to minimise the costs associated with ongoing maintenance of sports facilities. Correctly specified fencing will require little or no ongoing maintenance. However, it is advisable to avoid rolled chain link fencing, as this is likely to need periodic re-tensioning and repairs.

Specifying low-maintenance or pre-treated timber for perimeter kickboards can also minimise the amount of maintenance required.



Guide to Sports Ground Fencing



A Specifier's Guide

Standards and specifications

There are several British and European standards that may be applicable to sports ground fencing. The following table lists those most commonly encountered.

BS 1722-1:2006	Fences. Specification for chain link fences
BS 1722-2:2006	Fences. Specification for strained wire and wire mesh netting fences
BS 1722-14:2006	Fences. Specification for open mesh steel panel fences
BS 1722-16:2009	Fences. Specification for organic powder coatings to be used as a plastics finish to components and mesh
BS 4102:1998	Specification for steel wire for general fencing purposes
BS EN 10223-4:2012	Steel wire and wire products for fencing and netting. Steel wire welded mesh fencing
BS EN 10223-5:2012	Steel wire and wire products for fencing and netting. Steel wire woven hinged joint and knotted mesh fencing
BS EN 10223-6:2012	Steel wire and wire products for fencing and netting. Steel wire chain link fencing
BS EN 10223-7:2012	Steel wire and wire products for fencing and netting. Steel wire welded panels for fencing
BS EN 12839:2012	Precast concrete products. Elements for fences
BS EN ISO 1461:2009	Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods



Guide to Sports Ground Fencing



A Specifier's Guide

If in doubt, ask

Procter Fencing Systems is one of the UK's leading specialist manufacturers of fencing and gates, with many years' experience in sports ground fencing for schools, colleges, local authorities and professional clubs. From its sites in Leeds, South Wales and Brentwood, Procter Fencing Systems offers a comprehensive service to survey, design, manufacture and install fencing and gates nationwide. All products are designed in accordance with the requirements of ISO 9001 and all meet the appropriate health, safety and product standards. Installation is carried out by the company's own teams of skilled installers.

Single-sourcing

Procter Fencing Systems is a division of Procter Contracts. The two other divisions, Procter Automatic Gates and Procter Street Furniture, design, manufacture, supply and install other products that are often used in and around sports grounds. These range from standard and customised powered gates (sliding, telescopic, swing and bi-folding types), through to team shelters (dugouts), walkways and shelters, cycle racks, bollards, barriers, benches, litter bins, secure bin stores and bespoke items. Specifiers or contractors wanting products from two or more of the three divisions benefit from a single senior point of contact, simplified communications, streamlined project management and cost savings. Moreover, projects that are better co-ordinated are also more likely to be finished within the tight timescales that are often required for sports grounds.



Useful resources

Free White paper: Planning a Perimeter Fencing Project

To help ensure fencing is correctly specified and installed so as to avoid unnecessary costs.

Email: Enquiries@ProcterContracts.co.uk

Download: www.fencing-systems.co.uk/free-downloads/specifiers-guides

Fencing Selector

A risk-based utility to help identify the optimum fencing for protecting against given threats.

Email: Enquiries@ProcterContracts.co.uk

Download: www.fencing-systems.co.uk/free-downloads/specifiers-guides

Making a planning application - A guide for sports clubs

This handbook has been produced by Sport England in partnership with the Department of Communities and Local Government.

Download: www.sportengland.org/media/3579/making-a-planning-application-a-guide-for-sports-clubs.pdf

Guide to Sports Ground Fencing



A Specifier's Guide

Further information

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Website: www.automatic-electricgates.co.uk

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Tel: 029 2085 5756 — Fax: 029 2088 7055 — Email: Enquiries@ProcterContracts.co.uk

Website: www.procterstreetfurniture.co.uk

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Website: www.procterbros.co.uk/contracts

BSI

Tel: 020 8996 9000 — Fax: 020 8996 7001

Website: www.bsigroup.com — Email: cservices@bsigroup.com

Department for Education (DfE)

Tel: 0370 000 2288 — Fax: 0161 600 1332

Website: www.gov.uk/df

Sport England

Tel: 0345 8508 508 — Fax: 020 7383 5740

Website: www.sportengland.org — Email: info@sportengland.org



Guide to Sports Ground Fencing



A Specifier's Guide

About the author

Jeremy Procter is Managing Director of Procter Contracts and has been involved with fencing, gates and street furniture for approximately 40 years.

The information contained in this publication is intended as a guide only and is believed to be correct at the time of going to press. However, it is the reader's responsibility to ensure that all current legislation and regulations are complied with when specifying, designing or installing perimeter fencing and associated security measures.

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