



Mark
Harrod
Limited



Goal Post Safety Guidance

www.markharrod.com

Goal Post Safety Guidance

Mark Harrod has over 30 years experience as a manufacturer and supplier to the sports industry. He is a leading specialist in the field of goal post safety and was involved in the revision of the Small sided Goal Post standard with football's governing bodies, the FA and the Football Foundation.

As one of the UK's leading Goal Post manufacturers we are totally committed to the issue of goal post safety. We aim to make "safety our goal". This guide has been designed to provide important facts and guidelines to ensure that all goals and equipment are safe in use and whilst being stored.

The FA has published a document which gives guidance on the purchase and use of goal posts. This document was produced to help prevent fatal accidents which have occurred with the misuse of goal posts. The document was used to produce two new British Standards BS 8462:2005 and BS 8461:2005. Copies of these standards can be purchased from www.bsonline.bsi-global.com

These standards now cover all goals apart from Full Sized which are covered by BSEN748. The main points from the standards are listed below.

- Only Purchase goals from a manufacturer that has products which conform to the latest British and European standards (BSEN748 or BS 8462:2005)
- Manufacturers should be able to supply test certificates if needed.
- No home-made or modified goals should be used; most deaths from accidents have involved home made or modified goals.
- Wooden goals should not be used and do not meet the European Standard.
- Regular maintenance and inspections should be carried out and records kept enabling the correction of faults found during inspection.
- Socketed goal posts should always be concreted in.
- Freestanding goals should be anchored at all times, either by attaching the back bar to permanent fixing points for instance, eyebolts, stainless steel loops set in concrete blocks, or suitable attachments on a permanent fence, or by using the correct number of weights attached to the back bar or as part of the goal frame.

Mark Harrod Ltd is a suitable goal post supplier to the Football Foundation goal post replacement scheme

Background Issues

Tragically, several children in England have been killed as a result of falling goal posts, entrapment accidents have also occurred with welded metal cup hooks. All the fatal accidents occurred with goals which had been modified or were home made goals. Pressure from concerned parents and industry leaders highlighted the issue of the need for safer goal posts.

During the 2001/02 season the FA carried out a programme of site inspections & testing of goal posts across the country, the results of these inspections highlighted some alarming deficiencies, of the goals tested 41% mini soccer, 50% 5 aside goals & 22% junior portable goals failed stability tests, anchor weights were rarely used properly or to the correct loading and all wooden goals failed the test.

The purpose in publishing this guide is to help prevent accidents by describing what needs to be done to make sure that goals are safe. When installed and used in the right way, a goal that was built according to the correct safety instructions and maintained should not cause any injury. We want to promote good practice.

There are three important aspects of a goal's design and construction which are potential dangers and where accidents have happened.

- How the net is fixed to the frame of the goal. Metal hook fixings have caused serious injuries, including amputations, deep penetrative wounds and injuries involving trapping parts of the body (fingers, head, and so on). These hooks will be illegal from 2007.
- The net itself. A net can cause cuts and trap parts of the body if the mesh size is too large, or the cord is too thin.
- The goal frame. Serious impact and crushing injuries have been caused by goals which have fallen over or collapsed, either as a result of poor design or maintenance or modification of the goal or through poor installation.

The vast majority of goal posts are manufactured by bone fide companies like ourselves and many will comply with the current European Standards (BSEN 748 & BS8462:2005) if anchored as per our recommendations, they will be perfectly safe in use. All Mark Harrod Ltd goals are independently tested to conform to the standards and test certificates are available upon request, as per the Football Foundation criteria.

The Industry has been doing all it can to eliminate these tragic accidents. British Standards now exist covering all goal types, the following pages are to help you understand the rudiments of goal safety.

BS EN 748:2004

Standard for testing, instructions and warning labels.

BS EN 748:2004

Applicable for socketed and freestanding full size 7.32m x 2.44m (24ft x 8ft) and 5m x 2m goals only.

- All free-standing goals must be anchored in use and during storage.
- All socket type goals should be concreted into the ground.
- Steel Cup Net Hooks shall not be used and will be illegal from 2007.



TESTING



Crossbars must be tested for strength. To pass this test they must be able to withstand a vertical force of 180kg applied to the middle of the crossbar for 1 minute.

When tested the crossbar should not fracture or collapse or show permanent deformation greater than 10mm within 30mins of testing. A stability test is also carried out, where a horizontal force of 110kgs is applied to the top of the centre of the crossbar, the goal must remain stable and not fall over.

The net must be tested for breaking strength and be a maximum of 120mm square mesh.

INSTRUCTIONS

All manufacturers must provide written instructions for assembly, installation, maintenance and anchorage. When stored but not in use goals should be secured against overturning.

For socketed goals, detailed instructions for the installation of the ground sockets should be included.

WARNING LABELS

A prominent warning label must be fixed to the goal frame, displaying information to the following effect.

- This goal is intended to be used only for football.
- Before using this product, check that all fastenings are secure and fully tightened.
- Ensure that the goal is secured at all times by means of the appropriate supplied anchoring system.
- Do not climb on the net or goal framework.
- The number and dates of the British/European Standards, i.e. BS EN 748
- The name or trademark of the manufacturer, retailer or importer;
- The year of manufacture of the frame.

BS 8462:2005

Standard for testing, instructions and warning labels.

BS 8426:2005

Applicable for all goals except full size goals which must conform to the BSEN 748.

- All free-standing goals must be anchored in use and storage.
- All freestanding goals must have weighted bottom back bar.

- All socket type goals should be concreted into the ground.

- Steel Cup Net Hooks shall not be used and will be illegal from 2007.

TESTING YOUTH AND FUTSAL GOALS

Crossbars must be tested for strength. To pass this test they must be able to withstand a vertical force of 180kg applied to the middle of the crossbar for 1 minute.

When tested the crossbar should not fracture or collapse or show permanent deformation greater than 10mm within 30mins of testing. A stability test is also carried out, where

a horizontal force of 110kgs is applied to the top of the centre of the crossbar, the goal must remain stable and not fall over.

The net must be tested for breaking strength and be a maximum of 120mm square mesh.

TESTING MINI SOCCER (NOT UPVC) AND SMALL SIDED FOOTBALL GOALS

Crossbars must be tested for strength. To pass this test they must be able to withstand a vertical force of 80kg applied to the middle of the crossbar for 1 minute.

When tested the crossbar should not fracture or collapse or show permanent deformation greater than 10mm within

30mins of testing. A stability test is also carried out, where a horizontal force of 70kgs is applied to the top of the centre of the crossbar, the goal must remain stable and not fall over.

TESTING UPVC GOALS (LESS THAN 18.0KG)

Crossbars must be tested for strength. To pass this test they must be able to withstand a vertical force of 30kg applied to the middle of the crossbar without fracture or other damage.

A stability test is also carried out, where a horizontal force of 30kgs is applied to the top of the centre of the crossbar, the goal must remain stable and not fall over.

Official Goal Sizes		
Type of football	Sizes (mm)	Appropriate Specification
Eleven a side (full size)	7320 x 2440	BS EN 748
Youth Football	6400 x 2130	BS 8462
Intermediate 9v9	4880 x 2130	BS 8462
Mini Soccer	3660 x 1830	BS 8462
Small Sided Football	4880 x 1830	BS 8462
	4880 x 1220	BS 8462
	3660 x 1220	BS 8462
	2440 x 1220	BS 8462
Futsal	3000 x 2000	BS 8462

Table 1

BS 8462:2005 *continued*

INSTRUCTIONS

The manufacturer shall provide written instructions for assembly, installation, use, storage and maintenance. These instructions must be supplied with the goal.

For socketed goals, detailed instructions for the installation of the ground sockets should be included.

For free-standing goals, the information supplied shall include detailed instructions for use of the anchoring system.

The instructions for free-standing goals shall include a reminder that the goals should at all times be anchored by means of the system supplied for the relevant surface. The instructions shall also fully describe the anchoring system supplied with the goals including a list of all components required to allow the goals to conform to this British Standard.

WARNING LABEL

A prominent warning label shall be fixed to the goal frame, displaying information to the following effect.

- This goal is intended to be used only for football.
- Before using this product, check that all fastenings are secure and fully tightened.
- Ensure that the goal is secured at all times by means of the appropriate supplied anchoring system.
- Do not climb on the net or goal framework.
- Spare parts and guidance on goal post safety may be obtained from the goal's manufacturer.
- Do not climb on the net or goal framework.
- The number and dates of the British Standard, i.e. BS 8462-1:2005;
- The nominal size of the goal frame and its intended use.
- The name or trademark of the manufacturer, retailer or importer.
- The year of manufacture of the frame.



BS8461:2005 Football Goals - Code of Practice for their procurement, installation, maintenance, storage and inspection.

PROCUREMENT

Goals, nets and fittings for use should conform to BS EN 748 or BS 8462, as appropriate (see table 1 on page 5).

Goals should be purchased as a complete unit (e.g. goal, net, anchors, chains, etc. together with any other accessories that may be needed).

Replacement items for a goal should always be purchased from the original manufacturer or supplier and it is important to ensure that the combination of goal and new component will continue to conform to BS EN 748 or BS 8462, as appropriate.

RECORDS

A permanent identification label should be attached to every goal.

On receipt/installation of a new goal, a log book should be established to record when the goal was purchased and first erected, together with how it was installed and how it is maintained.

The log book should be kept for a minimum of 21 years to ensure that evidence of good practice is available in the event of any subsequent legal proceedings.

INSTALLING GOALS

On receipt, a new goal should be checked carefully to ensure it has not been damaged in transit and that all parts are present. In the event of any parts being missing, the goal should not be assembled, nor used in an incomplete state.

Goals should always be installed in accordance with the manufacturer's instructions.

Installation should only be undertaken by, or under the direct supervision of, trained persons with enough experience and with adequate assistance for the size of the goal being erected.

SOCKETED GOALS

Goal post sockets should always be set into concrete. Always install as per manufacturers instructions to determine dimensions of concrete and ensure a minimum cube of 600mm x 600mm.

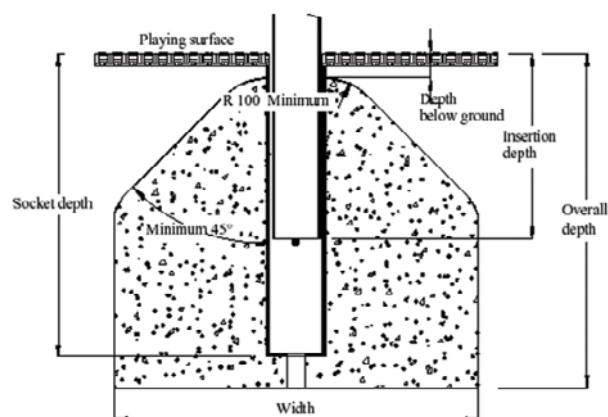


Diagram 1

BS8461:2005 Football Goals - Code of Practice for their procurement, installation, maintenance, storage and inspection continued

FREESTANDING GOALS

Free-standing goals should be properly stabilised in accordance with the manufacturer's instructions. They must be anchored at all times whether in use or storage.

Free-standing goals are only safe if they are properly stabilised. Most of the commonly used methods of stabilisation can be affected by poor installation techniques as well as by poor ground conditions. For this reason, the most reliable methods of stabilising free-standing goals are:

- Self weighted goals conform to the standard without the need for any extra anchorage

- Attaching the back bar of the support frame to permanent fixing points, for instance, eyebolts, stainless-steel loops set in concrete blocks in the correct position or suitable attachment points on a permanent fence or wall

- Using adequate weights attached to the back bar of the support frame in the correct positions specified by the manufacturer

The use of pins, u-pegs or screw-in anchors on natural turf pitches should only be used if you have evidence that they are effective under the worst ground conditions as these types of fixings may provide inadequate stability.

MOVING GOALS

A goal may be at its most dangerous when it is being moved. Under these circumstances, most types of goal are detached from any anchors, weights, fixing points or sockets and are therefore unstable.

Goals should never be moved without an adequate number of physically fit and capable people who have been fully trained to use proper lifting techniques.

A full-sized goal should never be moved using fewer than four adults.

NOTE: Guidance notes from the Health and Safety Executive (such as Getting to grips with manual handling [2]), give advice on lifting and moving heavy objects safely.

Manufacturer's instructions on moving goals should always be followed. Goals should never be dragged across the ground as this may damage the goal and/or the playing surface. If wheels are fitted to the goal, they should be used correctly, in accordance with the manufacturer's instructions. Wheels should be of a type suitable for the surface across which the goal is to be moved.

Goals fitted with four wheels can easily topple if they are pushed in the wrong direction and should only be moved by pushing the uprights in a backwards direction. Goals with two wheels should be moved by lifting the back bar and pulling in a backwards direction. If the ground is soft, wheeled goals should be lifted.

STORING GOALS

Goals should be properly stored when they are not in use. Stored goals should never be left accessible, upright or unstabilised. Socketed goals and folded free-standing goals should not be left leaning unsecured against a wall or fence. They should be locked securely and safely to a wall or fence. If this is not possible they should be left lying flat on the ground so that they cannot fall over.

Movable goals may be left safely by chaining them face to face in pairs or putting them in securable enclosures. If no method is available to store goals safely it is safer to leave them in place, properly stabilised as if in use.

BS8461:2005 Football Goals - Code of Practice for their procurement, installation, maintenance, storage and inspection continued

INSPECTING GOALS

Goals should be inspected regularly to ensure that they are still safe to be used.

It is not possible to specify exactly what checks should be made or at what intervals, because the conditions under which goals are kept and used vary so widely. It may be necessary to check a goal which is permanently installed in an open public space every day, while one which is in a locked, fenced enclosure and is only ever used by an organised club at a high level with supervision may need to be checked

relatively infrequently. The type and thoroughness of the checks may also vary with the type of goal.

The following inspection procedures should be used as a guide to establish the minimum frequency and level of checks required for any one set of goals. The parameters should be reviewed in the light of actual events; if the records show that faults are found at each inspection the frequency of inspections should be increased.

INSPECTION TYPE 1

Undertaken at least every week, and before any game or training activity.

Undertake a thorough visual check of the whole goal and check for the following:

- Loose and missing nuts, bolts, pins and other fixings;
- Firm attachment to anchoring points or signs of movement in sockets;

- Broken or missing net fixings;
- Any broken cord in the nets;
- Bent sections or other damage to any part of the goal;
- That all identification and instruction labels are firmly attached and fully legible.

INSPECTION TYPE 2

Undertaken each time a goal is repositioned.

Undertake all the checks listed under inspection type 1 and:

- Check that the goal has been firmly reattached to all of its anchors;
- Check that the anchors are secure;

- If weights are used, ensure that they are all present. The manufacturer's label on the goal should say what weight is needed to stabilise it;
- Check that the goal has not been bent or otherwise damaged whilst being moved.

BS8461:2005 Football Goals - Code of Practice for their procurement, installation, maintenance, storage and inspection continued

INSPECTION TYPE 3

Undertaken once every twelve months ideally prior to the start of every season.

Undertake all the checks listed under inspection types 1 and 2 and the following:

- Check (every goal) for strength and stability, in accordance with BS EN 748 or BS 8462, as appropriate.

A goal's strength or stability should never be tested by hanging or swinging from the crossbar.

REPAIRS TO DAMAGED OR FAULTY GOALS

If a goal is found to be damaged, or if faults are found during an inspection, the goal should be withdrawn from service until the defect is made good. Goals should be repaired using only the correct parts

supplied by the original manufacturer/supplier.

Goals should not be modified or repaired by welding or by substituting incorrect parts.

SIGNAGE

A warning sign that summarises the dangers of not installing, securing or using goals correctly should be

displayed on or near every pitch or sports hall where goals are used.

GOAL INSPECTION AND RECORD SHEETS

Please see the following pages for examples of a Goal Record Sheet and a Goal Inspection Sheet.

Example 1 - Goal Record Sheet

Example 2 - Goal Inspection Sheet

Example 1 - Goal Record Sheet

 <h3>Goal Record Sheet</h3> <p>GOAL UNIQUE REFERENCE NUMBER.....</p>	
Goal Reference	FOT-022 GOALS FOT-026 EASYLIFT WHEELS
Type of goal	PORTABLE ALUMINIUM 7.30M X 2.44M GOALS COMPLETE WITH EASYLIFT WHEELS
Manufacturer	MARK HARROD LTD
Contact details for spares and repairs	AS BELOW
	Unit 1, Tilia Court, Beccles Business Park, Worlingham, Beccles, Suffolk 01502 710039 07795 484437
Date of manufacturer	September 2006
Date of inspection	25 September 2006
Findings	All OK
Action taken	None
Inspected by	MARK HARROD

Example 2 - Goal Inspection Sheet

Goal Inspection Sheet					Goal Reference
Date	Checked	Reason for Check	Findings	Action Taken	Checked by
	Missing nuts/bolts				
	Broken cords				
	Missing/broken net hooks				
	Broken or damaged parts				
	Scatched/damaged paintwork				
	Other				

Unit 1, Tilia Court, Beccles Business Park,
 Worlingham, Beccles, Suffolk
Tel: 01502 710039 **Fax:** 01502 471721
Mobile: 07795 484437 **Email:** info@markharrod.com
www.markharrod.com

Goal Post Options

SOCKETED GOAL POSTS

Sold in sets of two, steel or aluminium, complete with back net supports conforming to NPFA recommendations, synthetic net hooks and sockets which must be concreted in (See diagram 1 page 7). Ideal for grass pitches.



FENCE-FIXED FOLDING GOAL POSTS

Sold as a set of two, aluminium only, complete with net and synthetic net hooks, 4 x 100mm square support posts. These goals must be professionally installed. These goals can fold away when not in use therefore allowing other sports to take place. Suitable for synthetic pitches.



SELF WEIGHTED FREESTANDING GOAL POSTS

Sold as a set of two, complete with internal weights, international back supports, diagonal brace, synthetic net hooks and Easy Lift wheels exclusive to Mark Harrod Ltd. These goals are portable and can easily be moved on grass and synthetic surfaces, without the requirement of extra anchorage.



FREESTANDING GOAL POSTS

Sold as a set of two with international back supports, diagonal brace, synthetic net hooks and Easy Lift wheels exclusive to Mark Harrod Ltd. These goals are portable but require to be anchored correctly to conform to standards. The most reliable methods of stabilising freestanding goals are:

- Attaching the back bar to permanent fixture points for instance, eyebolts, stainless steel loops set in concrete blocks, or suitable attachments on a permanent fence.
- Using the correct number of counter weights (17kilo) attached to the back bar or as part of the goal frame.



Counter Weight Requirements:

Full Size Goals = 6 x FOT-037

Mini Soccer Goals = 4 x FOT-037

Five A Side Goals = 4 x FOT-037

Anchors

COUNTER WEIGHTS



17 kilo hand bag type weight complete with chain and carbine clip. FOT-037 to conform to BSEN748.

- 6 weights required to anchor a full sized goal.
- 6 weights required to anchor Futsal goals.
- 4 weights required to anchor mini soccer goal and 5-a-side to conform to BS8462:2005

ANCHOR CHAIN



3m of Heavy duty chain complete with 2 carbine clips and 2 rawl bolts. FOT-039.

- Requires 2 no per goal to conform to BS EN 748/BS8462:2005

U PEG ANCHOR



12mm steel, 460mm long zinc plated, sold in sets of 4. FOT-038.

- Requires 2 no per goal all goals to conform to BS EN 748/BS8462:2005

U-pegs should only be used if you have evidence that they are effective under the worst ground conditions.

SPORTS HALL ANCHOR



Wall fixed 100mm rawl bolt complete with chain and 2 carbine clips. FOT-040.

- Requires 2 no per goal all goals to conform to BS EN 748/BS8462:2005

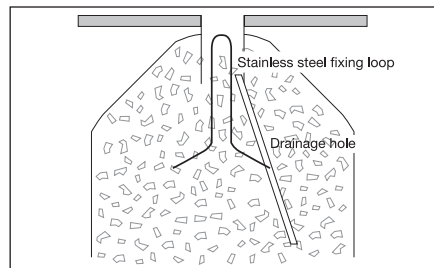
INTERNAL WEIGHT ANCHORS



Weights made to go inside Aluminium Portable football goals 100 x 110 section. Each weight is fully galvanised and weighs approx 11.5Kg.

- A full size portable goal 7.3m x 2.4m will require 9 weights to anchor it down to conform to BS EN 748
- Mini soccer and 5-a-side goals require weights to conform to BS8462:2005

STAINLESS STEEL FIXING LOOPS



Made from 12mm stainless steel 450mm long complete with chain and carbine clips. FOT-100.

- Requires 2 no per goal all goals

This product should be concreted in to conform to BS EN 748/BS8462:2005

SPIRA-LOCK ANCHORS



FOT-850

- Ideal anchors for team shelters on grass or tarmac
- Sold in pack of 4
- Anchors are 400mm long
- Requires 2 no per goal to conform to BSEN-748/BS8462:2005

FLIP UP STYLE SYNTHETIC PITCH ANCHOR



FOT-852

- Anchor designed for synthetic pitches
- Anti-tamper proof lid
- 2 anchors needed per goal
- Sold in pairs
- Full galvanised finish
- Requires 2 no per goal to conform to BSEN-748/BS8462:2005

GROUND ANCHOR TUBE TYPE



FOT-853

- Anchor can be used in grass or synthetic pitch
- Comes complete with chain and carbine clip
- Sold in set of 4
- Requires 2 no per goal to conform to BSEN-748/BS8462:2005

References

BS 8461: Football goals - code of practice for their procurement, installation, maintenance, storage and inspection, 2005.

BS 8462: Goals for youth football, futsal, mini-soccer and small-sided football - Specification, 2005.

BS EN 748: Playing field equipment - Football Goals - Functional and safety requirements, test methods, 1998.

Football Laws of the Game. London: The Football Association, 2006.

Small Sided Football Laws of the Game. London: The Football Association, 2006.

Futsal Laws of the Game. Zurich: Federation Internationale de Football Association, 2006.

Laws of Mini-Soccer. London: The Football Association, 2006.

Goals of Football - Guidance notes, The Football Association, 2002.

Goalpost Safety - The final report and findings in connection with the on site inspecting and testing of goal posts, Devereux Earle Sport and Leisure, 2002.

***Mark Harrod Ltd is a suitable goal post supplier to
the Football Foundation goal post replacement scheme***



Mark Harrod Limited

***Office: Unit 1, Tilia Court, Beccles Business Park,
Worlingham, Beccles, Suffolk***

***Factory: Unit 41/42, Ladfordfields Industrial Estate,
Ladford Covert, Seighford, Stafford ST18 9QG***

Tel: 01502 710039 Mobile: 07795 484437

Fax: 01502 471721 Email: info@markharrod.com

Web: www.markharrod.com

