

Australian Standard<sup>®</sup>

**Playing field equipment—Soccer goals**

**Part 1: Safety aspects**



This Australian Standard® was prepared by Committee CS-101, Sports and Recreational Equipment. It was approved on behalf of the Council of Standards Australia on 20 September 2007.  
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- Association of Accredited certification Bodies
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  - Australian Toy Association
  - Consumers Federation of Australia
  - Department of Education & Training (NSW)
  - Department of Tourism, Sport and Recreation NSW
  - Engineers Australia
  - Northern NSW Soccer Federation
  - Office of Fair Trading NSW Consumer Protection Agency
  - Soccer NSW
  - The Children's Hospital at Westmead
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## PREFACE

This Standard was prepared by Standards Australia Committee CS-101, Sports and Recreational Equipment, at the request of the Office of Fair Trading NSW. This Standard supersedes HB 227:2003, *Portable soccer goalposts—Manufacture, use and storage*.

The Committee referred to EN 784:2004, *Playing equipment—Football goals—Functional and safety requirements, test methods* and ASTM F2056:2000, *Standard Safety and Performance Specification for Soccer Goals*, in the preparation of this Standard.

This Standard is the first part in a series of standards addressing safety aspects of sporting goals and provides requirements for the construction, stability and labelling of soccer goals. Further parts are planned to address safe use, storage and maintenance of soccer goals, and safety requirements for goals used in other sports.

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## FOREWORD

It is difficult to assess accurately how many movable soccer goals are in use in Australia. However, weekend or inter-club soccer involves several hundred thousand players. Additionally, indoor soccer premises, which also use moveable soccer goals, are in existence in most local government/council areas.

A ten-year-old NSW boy died in 1999 when he was struck on the head by the crossbar of an unanchored moveable soccer goal that was accidentally pulled down onto him by an opposing player doing a chin-up, during an informal game. In June 2003 a three-year-old NSW child died at a soccer field when an unsecured portable soccer goal toppled over striking her on the head. The goal, which could be easily tipped over by hand, weighed 180 kg, was about twenty years old and had no rear ground bar. The goal was at the side of a field and was not being used in play. On 27 August 2004 the NSW Deputy State Coroner heard during an inquest that there had been seven deaths, at least, and one person made paraplegic in Australia since 1986, 27 deaths and 49 serious injuries in the U.A from 1979 to 2003 and seven other deaths in the UK, Ireland, Malta and Japan involving moveable soccer goals.

Almost all of the goals involved in the accidents were 'homemade' and were not professionally manufactured. These homemade goals are often very heavy and unstable.

The majority of movable soccer goals are constructed of metal, weighing in the vicinity of 250 kg. The serious injuries and deaths are a result of blunt force trauma to the head, neck, chest, and limbs of the victims. In most cases this occurred when the goal was accidentally tipped onto the victim.

High winds can also cause movable soccer goals to fall over. For example, a 9-year-old was fatally injured when a goal was tipped over by a gust of wind. In another incident, a 19-year-old goalie suffered stress fractures to both legs when the soccer goal was blown on top of her.

## STANDARDS AUSTRALIA

### Australian Standard Playing field equipment—Soccer goals

#### Part 1: Safety aspects

#### 1 SCOPE

This Standard specifies safety and performance requirements for soccer goals that are used for training and competition in outdoor sports facilities and indoor arenas.

#### 2 OBJECTIVE

This Standard addresses the risk of unintentional fall over or collapse of soccer goals.

#### 3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1318 Use of colour for the marking of physical hazards and the identification of certain equipment in industry (known as the SAA Industrial Safety Colour Code)

AS/NZS

1554 Structural steel welding

1554.1 Part 1: Welding of steel structures

1665 Welding of aluminum structures

#### 4 DEFINITIONS

For the purposes of this Standard the definitions below apply.

##### 4.1 Load cell

An electronic device (transducer) used to convert a force into a differential electrical signal. This device normally consists of four strain gauges in a wheatstone bridge configuration.

##### 4.2 Movable goal

A freestanding structure consisting of at least two upright posts, two side ground bars, a rear ground bar, a crossbar and support bars as shown in Figure 1. A movable goal is designed:

- (a) to be used by adults or children for the purposes of a soccer goal;
- (b) to be used without any other form of support or restraint (other than pegs, stakes or other forms of temporary anchoring device); and
- (c) to be able to be moved to different locations.

NOTE: A soccer goal that is supported by a sleeve set in the ground is a semi-permanent goal, not a moveable soccer goal.