







Sports Dimensions Guide For Playing Areas

Sport and recreation facilities

Sixth edition: June 2016

June 2016

ISBN: 978-1-921648-50-2

This guide is produced by:

Department of Sport and Recreation 246 Vincent Street, Leederville, Western Australia 6007 PO Box 329, LEEDERVILLE WA 6903

Telephone 9492 9700 www.dsr.wa.gov.au

Contributors to this edition:

Barbara Clarkson Department of Sport and Recreation

Contents

Introduction	5
Use of this guide	6
Orientation of outdoor facilities	7
Court marking	8
Sports lighting	11
Archery	14
Athletics	18
Badminton	29
Baseball	30
Basketball	32
Bocce bowls	34
Bowling—ten pin	35
Bowls—lawn bowls	36
Boxing	37
Cricket	38
Croquet	41
Cycling	42
Darts	48
Diving	49
Equestrian	51
Fencing	52
Flying disc	52
Football (soccer)	53
Football—Australian Rules	57
Gaelic football	59
Gymnastics	60
Handball	63
Hockey	65
Ice hockey	68
Judo	69
Karate	69
Lacrosse	70

Netball	73
Polo	75
Polocrosse	76
Roller sports	77
Rugby league	80
Rugby union	82
Shooting	84
Softball	87
Squash	89
Swimming	91
Table tennis	93
Taekwondo	94
Tennis	95
Touch football	98
Volleyball	99
Water polo	101
Weightlifting	102
Wrestling	103



Introduction

In Australia there are currently many exciting new developments in the provision of sport and recreation facilities such as indoor aquatic play areas. There is also a demand for traditional sports playing areas and facilities.

All these facilities have the potential, with proper management and promotion, to encourage greater community participation in sport and recreation activities. The result will be a healthier, happier and more cohesive Australian community.

It is important that facilities are correctly designed and accurately marked for the enjoyment of the top competitor as well as the social participant. This publication will help to ensure that sports playing areas meet these requirements.

Each sport is introduced with a brief description as well as an illustration of dimensional requirements. These illustrations are not to scale. All dimensions are metric and in some cases are direct conversions from imperials. Dimensions are those required for official competition, however in some cases these may be varied for recreation purposes.

The appropriate state sporting associations are responsible for administering their rules for playing and the dimensions for playing areas. In some instances the rules are national and international standard. Prior to proceeding with the construction or line marking of any facility, the reader is advised to contact the relevant state sporting association to obtain the most up to date information.

Use of this guide



Intended purpose

This guide has been prepared by the Department of Sport and Recreation to provide general information regarding the designing of, and marking out for, a range of sporting activities played in Western Australia.

Disclaimer

The information in this guide is general in nature and cannot be relied upon as professional advice concerning the design of, or marking out for, sporting facilities and playing areas. No assurance is given as to the accuracy of any information contained in this guide and readers should not rely on its accuracy. Readers should obtain their own independent and professional advice in relation to their proposed sporting activity, including the state sporting association relevant to the sport.

The State of Western Australia, the Department of Sport and Recreation and their officers and employees, and any authors or contributors to this guide are not responsible for, and disclaim all liability in connection with, any loss, damage, personal injury or death howsoever caused (including where caused by negligence) arising from the use of, or reliance on, any information, statement or image contained in this guide (including but not limited to incomplete, out of date, wrong, inaccurate or misleading information, statements or images).

The sporting activities depicted in this guide may be dangerous for participants, spectators, organisers and instructors and readers must make their own assessment of the suitability and safety of such activities.

Copyright notice

Copyright in this document is reserved to the Crown in right of the State of Western Australia. Reproduction except in accordance with copyright law with the consent of the Director General of the Department of Sport and Recreation or the Attorney General is strictly prohibited.

Please contact the Department of Sport and Recreation with any enquiries.

Facilities Consultant
Department of Sport and Recreation
PO Box 329 LEEDERVILLE WA 6903
or
info@dsr.wa.gov.au
www.dsr.wa.gov.au







Orientation of outdoor facilities

North/south orientation is generally desirable for outdoor courts to avoid background glare at dawn or dusk. Orientation should also take into consideration other structures and features on the site, neighbouring property, vehicle and pedestrian traffic, and prevailing winds.

However, with more sports being played under lights, this may be less of a concern.

When installing all track and field facilities, careful consideration must be given to the position of the sun at critical times of day and the wind conditions.1

To avoid the dazzling effect of the sun when it is low, the longitudinal axis of arenas should lie along the north-south axis, although it is possible to deviate to the north-north-east and north-north-west.

This may result in the main straight being on the eastern side of the arena and will require consideration of the effects of a western setting sun on the spectators in the main stand. However, the most important aspect of design is to ensure that the best possible competition conditions are provided for the athletes.

In outdoor pools, best practice suggests that springboards and platforms are recommended to face north in the northern hemisphere and south in the southern hemisphere.

In shooting sports and archery, outdoor ranges should be constructed so that the sun is behind the shooter as much as possible. The orientation of an archery range in the southern hemisphere generally requires the shooting line to be on the north side of the range and the targets are on the north side", with a tolerance allowance from the magnetic north of +/- 20 degrees.

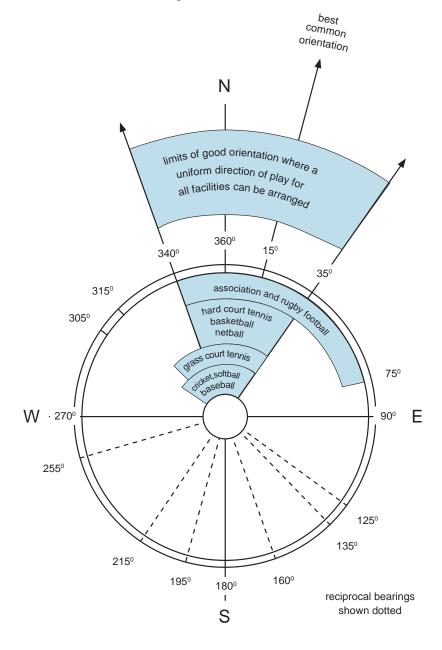
This is to allow the sun to be behind the archers most of the day.

Cricket pitches must run approximately north/south to minimise the risk of batsmen or bowlers facing a low sun.

Tennis courts must be oriented with play along an approximate north/south axis.

A north-south court orientation is preferred in basketball and netball to minimise the effects of sun glare. For Australian Rules Football playing fields should ideally be developed with a north-south orientation to avoid players having to look into the sun.

The diagram below illustrates the optimum orientation for Australia for various sporting activities. Local conditions may override these recommendations.



¹ IAAF Track and Field Facilities Manual 2008 Edition

Lawn bowling greens must be located away from tall buildings and trees that may cast shadows over the bowling surface, thereby affecting turf performance. This is not relevant for synthetic surfaces.

Court marking

In many cases of facility provision, it is not possible to accommodate individual courts for separate activities because of cost and space factors. Multi-marking of hardcourt areas, both indoors and outdoors, provides an acceptable alternative to individual markings.

The following information provides some guidelines and recommendations on how this may be achieved.

There is no international standard colour scheme for multi-court markings. However, there are recognised colour schemes that are widely used. The following is considered when deciding on colours to use:

- Requirements of each sport basketball specifies black and netball specifies anything other than yellow.
- Tradition/common practice—some sports don't specify a colour but there are certain colours normally used such as blue or green for volleyball.
- The range of courts being painted—if two governing bodies both want the same colour it would cause confusion so typical compromises are made.
- The colour of the floor—if you have a green vinyl floor then volleyball would be better painted in blue than green.

There also must be an allowance for 'run-off' areas for different sports. It is important to ensure that the minimum space around the court is maintained for each individual sport. Any sport or local government attempting to save money by reducing court sizes is setting up the potential for future litigation. If space is limited, the governing body's recommendations on run-offs should always prevail.

Indoor recreational

Court marking lines are painted on most sports floors. PVC tape is not usually used, except for temporary courts, whilst inlaid lines are an option for a limited number of sports floor products.

Paint should be selected and tested to suit the type of floor. Manufacturers will supply or recommend a proven paint and give guidance on its use. Two-part polyurethane is often used because of its durability. All lines should be masked out to a high standard prior to painting. Line widths must be ± 2mm and overall dimensions within 0.1 %.

The layout of court markings needs to be carefully planned to avoid overlapping lines. Manufacturers can usually recommend specialist firms to undertake this work or may include it as an element of the floor installation. For multisports facilities a range of colours is required to avoid confusion. Some suppliers provide a combined service in which line markings and fixed sports equipment are installed in the same package, therefore avoiding coordination problems.

Computer drawn layouts are useful aids when deciding details of a court layout.

The following colour schemes are recommended for indoor court markings on light surfaces, e.g. wooden gymnasium floors:

Sport	Line colour	Line width
Badminton	White	40mm
Basketball	Black	50mm
Handball	Orange	50mm
Indoor hockey	Light blue	50mm
5-a-side football	Other	50mm
Netball	Red	50mm
Tennis	Yellow	50mm
Volleyball	Green	50mm

Outdoor recreational

Playing lines can be painted on most surfaces but with synthetic grass for sports such as hockey and football (soccer), they are either tufted in during manufacture or cut in when installing the surface. Colour choice is important in suitable combinations of colours for the sports to be played. The most frequently used sports are marked out in white, followed by yellow, blue and red. These colours are also recommended for multi-court markings on dark surfaces, such as bituminous or concrete surfaces:

Tips for line marking:

- Allow new asphalt pavements to cure for 7-10 days prior to line marking.
- Do not use oil based line paint to mark new or reline the existing court pavements as they can become slippery when wet and the paint will crack.
- Use water based outdoor acrylic line paint (good quality).
- Apply in thin layers do not put heavy coats leading to build up over the asphalt as this will also crack and curl along the sides.

Line marking products

In the past, schools and sporting organisations have used sump oil or similar products as a cheap, durable and easy to apply line marking solution to outdoor grassed playing fields.

The Environmental Protection Agency (EPA) has released information that states "the use of waste oil [sump oil] for line marking on playing fields is discouraged and all reasonable and practicable measures should be used to find a more environmentally benign alternative." The EPA also advises that "environmentally benign alternatives to using waste oil for line marking include, but are not limited to:

- Organic-based water soluble paints.
- · Water-based vegetable dyes.
- · Chalk.
- · Glyphosate-based weed killers."
- It is an offence under the Environmental Protection (Water) Policy 1997, s31(1) for a person to deposit or release oil, paint or herbicides in a place where it could reasonably be expected to be washed into a roadside gutter, stormwater drain or a [body of] water (Environmental Protection Act 1994, s440ZG). The Environmental Protection Regulation 2008, Schedule 9 lists all prescribed water contaminants.

Companies specialising in line marking products and equipment can often assist with appropriate and durable alternatives dependent on field type and conditions.

The table below provides information about some commonly used line marking products.

Other resources:

Environmental Protection Act 1994 (reprint 10G 2012) www.legislation.qld.gov.au/legisltn/current/e/envprota94.pdf

Environmental Protection Regulation 2008 (reprint 2E 2012) www.legislation.qld.gov. au/LEGISLTN/CURRENT/E/ EnvProtR08.pdf

Recycle used oil www.environment.gov.au/topics/environment-protection/used-oil-recycling

Product	Comments
Agricultural lime—Calcite (whiting, calcium carbonate, CaCO3)	Calcite may be used as a dry line marking material. These products are classified as Hazardous Substances and therefore Safety Data Sheets (SDS) must be obtained and risk assessments completed.
Coloured Oxides—use Iron (red) or zinc (white) oxides only.	Note that the SDS for oxides warn about eye damage and potential for oxides to mark the clothes of players. Classified Hazardous Substance; SDS and risk assessment required.
Water based plastic paint	If the grass cover is good, remarking may not be necessary for up to 4 weeks. The addition of a wetting agent, ie white oil, will also assist in ensuring longer "life" of fluid.

References:

Sport England Design Guidance Note. Sports Halls Design & Layouts. February revision 005. Sport England 2012. www.sportengland.org.

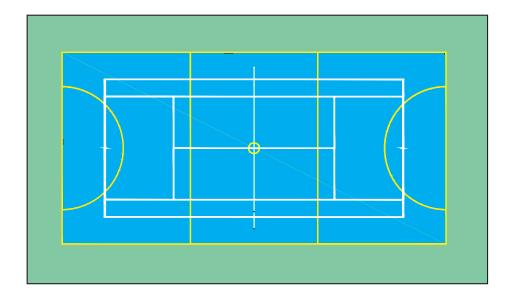
Sport England Design Guidance Note. Floors for Indoor Sports. Sport England 2007. www.sportengland.org. Sport England Design Guidance Note. Natural Turf for Sport. Updated guidance for 2011. May revision 002. Sport England 2011. www.sportengland.org.

A Guide to the Design, Specification & Construction Of Multi Use Games Areas (Mugas) Including Multi-Sport Synthetic Turf Pitches (STPs). Part 1 (of 3) – General Guidance and Design Considerations; Dimensions and Lavours

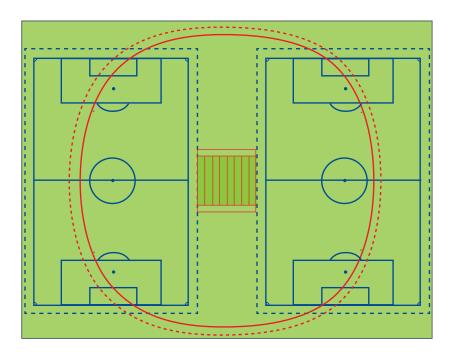
Artificial Surfaces for Outdoor Sport. http://www.sportengland.org/media/228371. December 2013 Organisational Health, Department of Education, Training and Employment, December 2013 v2, Queensland Government.

9

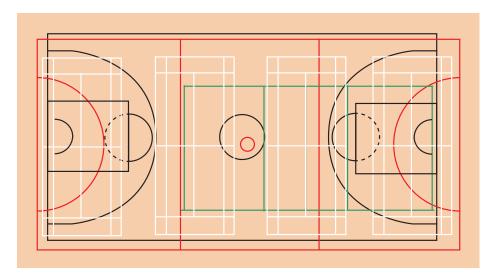
Examples of multi-marked courts



Tennis and netball court



Cricket (8 wicket pitch), football (soccer)and hockey pitches



Netball (red), basketball (black), volleyball (white)

Sports lighting

Lighting is a subject area with a high degree of technical complexity that can be difficult to understand.

The complicating factors which need to be taken into account in developing a lighting design may include:

- The varying and conflicting requirements of individual sports in a multi-sports facility.
- Complex inter-relationships with other elements of the building such as reflectance and colour of surfaces, variation in background surfaces
- Health and safety issues, for example in swimming pools or in fast moving ball games such as cricket or hockey, where the maintenance of a good lighting system is a fundamental requirement.

It is recommended that anyone considering a new installation or upgrade of their sports lighting, appoint an appropriate professionally qualified organisation, who will be required to develop the:

- Sports lighting performance requirements into acceptable design solutions and specifications.
- Other environmental lighting that will be required for support areas in and around the building or outdoor pitch.
- Related systems such as electrical supply, wiring and controls.

Design considerations

It is important that the lighting requirements of each sport are fully understood at the outset of a project.

Lighting installations for sport should balance the following issues within an integrated design:

- · Levels of illuminance.
- Uniformity of illuminance.
- Contrast
- · Glare control.
- · Colour rendering.

Compliance with statutory regulations.

Other considerations include:

- Volume of the field of play.
- · Lamp types.
- Level of illumination appropriate for a particular sport and level of play, nternational, national, club and community.
- · Glare.
- · Colours of surfaces.
- Sport specific safety issues.

Developing a design strategy

Sports lighting should be considered early in the building design process.

The following are key steps in developing a lighting design strategy:

- Confirm the layout(s) of sports areas.
- Definte the volune(s) of the field(s) of play.
- Identify adjacent areas with visual links.
- Establish the general lighting requirements.
- Establsih the lighting requirements for the invidivual sports and courts.

Lighting of multi-sports indoor facilities

The principal aims and objectives in lighting a sports hall include:

- The provision of a safe, enjoyable environment for players.
- The illumination of court markings and key
- Features such as nets and goals for the player and match officials.
- The provision of suitable and sufficient lighting for spectators.
- The provision of lighting for television broadcasting, where applicable.

Outdoor sports lighting

Recent years have seen a rapid growth in the number of floodlit outdoor sports facilities.

Outdoor sports lighting is now regularly seen at:

- Artificial grass pitches
- Natural turf pitches
- Multi use games areas (MUGAs)
- · Tennis courts
- · Athletics tracks

Outdoor sports lighting can help create more playing and training opportunities for playing areas and offer increased programming flexibility for users.

Before deciding to install floodlights, it is important that the cost benefits of the lighting are considered.

The benefits include:

- · Increased use of the facility.
- Programming flexibility.
- · Additional income.
- · Usage options.

The disavantages which are predominatly cost-related are:

- · Capital cost.
- · Energy costs.
- · Maintenance.
- Management and supervision.

Resources

Community Sporting Facility Lighting Guide for Australian Rules football, Football (Soccer) and Netball. Dept of Planning and Community Development, Victoria.

http://www.sport.vic.gov.au/sites/default/files/Football-Netball-Soccer-Lighting-Guide-2012.pdf

Sport England Design Guidance Note. Artifical Sports Lighting 2012.

https://www.sportengland.org/ media/4181/artificial-sports-lightingdesign-guide-2012-051112.pdf

Indoor sports - summary of recommended lighting levels (lux).

The total amount of visible light illuminating a point on a surface from all directions above the surface. The standard unit for illuminance is Lux (lx). For a lamp it normally refers to the total light emitted irrespective of the directions in which it is distributed. One lux equals one lumen per square metre.

This information does not include televised events unless specified.

Sport	Level of play	Horizontal lux	Reference
Athletics	Recreation/training	75	
	Club competitions	200	IAAF Track and Field Facilities Manual 2008
	National/international	500	Chapter 8 Facilities for Indoor Athletics
Badminton	International	1000	General Competition Regulations Appendix 2
Basketball	Recreation and training	300	AS 2560.2.2 - 1986 - Lighting of multi-
	Competition	500	purpose indoor sports centres
Cricket (indoor)	Club/national	500	Indoor cricket facilities: Design Guidelines. English Cricket Board
Cycling	Local and club	500	
	State, national and international	1000	UCI Cycling Regulations - Part 3 - Track Races
	Olympics and World Champs	1400	
Diving	Min one metre above water surface	600	FINA Facilities Rules, update 28 Oct 2015
	Olympic and World Champs	1500	FINA Facilities Rules, update 28 Oct 2015
Fencing	Training	300	AS 2560 – Sporting facilities manual – Part 1:
	Competition	500	sports lighting
Gymnastics	Recreation	300	AS 2560.2.2 - 1986 - Lighting of multi-
	Competition	500	purpose indoor sports centres
Ice hockey			
Martial Arts	Training	300	AS 2560 – Sporting facilities manual – Part 1:
	Competition	500	sports lighting
Netball (indoor)	Club	300	AS 2560.2.2 - 1986 - Lighting of multi-
	National	500	purpose indoor sports centres
Squash	Minimum standard	300	Recommended standardards approved by WSF - January 2013
Swimming	Recreation or training	120	AC 2500 25 2007 History (
	Club or district	240	AS 2560.2.5 - 2007 Lighting for swimming pools
	State, national and international	600	pools
	Olympic, World Championships	1500	FINA Facilities Rules 28 Oct 2015
Water polo	State, national and international	600	FINA Facilities Rules 28 Oct 2015
	Olympic, World Championships	1500	Tiva Facilities Rules 20 Oct 2015
Table tennis	Training	300	AS 2560 - Sporting facilities manual - Part 1:
	Competition	500	sports lighting
Tennis (indoor)	Training and club	200	International Tannic Federation guide to
	Regional and state	300	International Tennis Federation guide to lighting tennis courts.
	National and international	500	
Volleyball	FIVB, world and official	1000	FIVB Official Volleyball Rules 2015-2016
Wrestling	Training	300	AS 2560 - Sporting facilities manual - Part 1:
	Competition	500	sports lighting

Outdoor sports - summary of recommended lighting levels (lux).

Sport	Level of play	Horizontal lux	Reference	
Athletics	Recreational and training	75		
	Club competitions	200	IAAF Track and Field Facilities Manual 2008 Chapter 5 Technical Services	
	National and international competitions	500	2000 0.14,000 0 100.11.104.	
Baseball infield/	Club competition/training	250/150	AS 2560.2.6 - 1994 Lighting for baseball	
outfield	AAA	750/500	and softball	
	National and international	1500/1000		
Basketball	Training	100	AS 2560.2.4 Lighting for outdoor	
	Club competition	200	netball and basketball	
	National and international	500	FIBA Regulations	
Bowls	Competition, recreation, training	100		
Cricket oval -	Match practice	300/200	Comment of the Contract	
pitch/outfield	Club competition	500/300	Community cricket facility guidelines - Cricket Australia	
	State, national and international	750/500	galacinies cheket Australia	
Cricket nets	Recreation, school sport			
	Senior and junior club	500	Community cricket facility guidelines - Cricket Australia	
	National and international	1000	guidelines Cheket Australia	
Football (AFL)	Recreation/amateur training	50		
	Club competition and match practice, training for semi-professional (VFL, WAFL)	100	AS2560.2. 3 - 2007 Lighting for all	
	Semi-professional and match practice professional (AFL)	200	football codes	
	Professional competition	500		
Football (soccer)	Touch and tage amateur training	50		
	Amateur competition and match practice, Premier league ball training	100	AS2560.2. 3 - 2007 Lighting for all football codes	
	Men's state league competition/match practice	200	Toolbuil could	
Hockey	Training, junior and minor grade competition	250	AS2560.2.7 - 1994 Lighting for	
	Major grade club, national and international competition	500	outdoor door hockey	
Netball	Training	100	AS 2560.2.4 Lighting for outdoor	
	Club competition	200	netball and basketball	
Softball infield/	Club competition, training	250/150	AS 2560.2.6 - 1994 Lighting for baseball	
outfield	National and international	650/450	and softball	
Swimming	Recreation or training	120		
	Club or district	240	AS 2560.2.5 - 2007 Lighting for	
	State, national, international	600	swimming pools	
Tennis	Social play	250		
	Club competition	350	AS 2560.2.1 - 2003 Lighting for	
	International	1000	outdoor tennis.	
Volleyball- beach	FIVB, world and official	1000 - 1500	FIVB Official Beach Volleyball Rules 2015-2016	

Archery

Competitions in the sport of archery are classified in the following disciplines:

- Outdoor target archery.
- · Indoor target archery.
- · Field archery.
- · Clout archery.
- · Flight archery.
- · Novelty events.

Archery Western Australia (AWA) is the peak government body for the sport in Western Australia.

Rules for a safe target archery range

The following are prerequisites for a safe archery range:

- There is a clearly visible straight line on the ground, called the shooting line and archers only launch their arrows standing astride this line.
- In target archery there is only one shooting line for all archers, even if they are not shooting the same distances. Targets may be placed at different distances for different target lanes.
- There are target lanes, perpendicular to the shooting line and archers shoot only in the target lane corresponding to their place on the shooting line.
- Shooting is in one direction only.
- Archers aim continuously toward their target when drawing their bow. The bow must not be drawn in such a way that if the string was accidentally released the arrow would fly out of the safety zone.

Outdoor target archery

Field of play layout

As mentioned in the previous section the field is oriented to prevent archers from shooting with the sun in their eyes. The shooting line is located on the north side of the range as are the targets with a tolerance allowance from the magnetic of +/- 20 degrees. This allows the sun to be behind the archers most of the day.

The field of play is divided into shooting lanes containing one to four target butts. A line parallel to the shooting line is marked 3m in front of the shooting line. This line is there mainly for tournament purposes. If an archer has an arrow that falls within this 3m area the arrow is deemed as not being shot. Another arrow may be shot under the guidance of the officiating judge.

A waiting line is marked at least 5m behind the shooting line. There must be a minimum of 5m between the shooting line and waiting archers.

The shooting lanes are 5m apart to allow each archer a personal space of 80cm.

Barriers for the public are erected to keep spectators safe. These barriers must be:

- At least 20m away from the sides of the first and last target set at 90m.
- 10m behind the waiting line.
- At least 50m beyond the 90m target line.

These exclusion areas each side of the range must be kept clear from all obstacles which could obscure any potential danger.

The 10m measurement between the two different shooting distances identifies the separate ranges. Archers on one range are not allowed to collect their arrows whilst archers on the other range are still shooting.

The backstop must be high enough to stop arrows which have just missed the top of the butt at 90m.

Indoor target archery

Indoor target archery is shot at 18 or 25m, using the same targets as outdoor target archery. The venue generally has a polished wooden floor or a concrete floor and the range layout similar to outdoor field archery.

The number of targets in an indoor range depends on the width of the activity hall. Each archer requires a minimum of 80cm of space when on the shooting line.

Behind the targets there must be a safe arrow stop device, known as a special arrow stop curtain. Never rely on a special arrow stop curtain to stop arrows if there is any activity going on behind it. These curtains do deteriorate and with some high powered bows now available arrows have been known to pass through them.

At 5m behind the shooting line there is a waiting line. If the space available is restricted, this can be reduced to 3m but safety must not be jeopardised. Behind the waiting line there is space for the archers shooting equipment. Behind this area is a competitor's area, which accommodates archers, team managers and coaches. A total length of about 30m is required for an indoor facility.

It is recommended for indoor ranges that:

- Access to the range is only possible from behind the shooting line.
- Any other access is locked during practice.
- There is access to all emergency exits, but if some are in front of the shooting line entrance, access into the hall through these must be restricted.
- If there are windows or glass in the wall behind the target line that can be hit by an arrow that misses the target, an appropriate arrow stop covers these windows.
- If there are side windows less than 2m high, they are protected with an appropriate cover or with a shield.
- Suitable barriers are erected around the range to keep spectators back. The barriers are at least 10m from the ends of the target line and a minimum of 5m behind the waiting line.

 No spectators are allowed beyond the target line. Where the size of the hall does not require the erection of side barriers no spectators are allowed beyond the barrier situated behind the waiting line.

Some multi-sport venues use a divisional curtain. The curtain is attached at the upper side only and must be able to stop an arrow.

Under no circumstances should there be any human activity taking place behind the target area even if an arrow stop curtain is being used.

Field archery

Field archery differs from target archery in that the field of play has many different target lanes spread out over natural terrain.

The field course is arranged so that the shooting positions and the targets can be reached without undue difficulty, hazard or waste of time. Field courses should be as condensed as possible.

The walking distance from the central (assembly) area to the furthest target is no more than one km or 15 minutes normal walking.

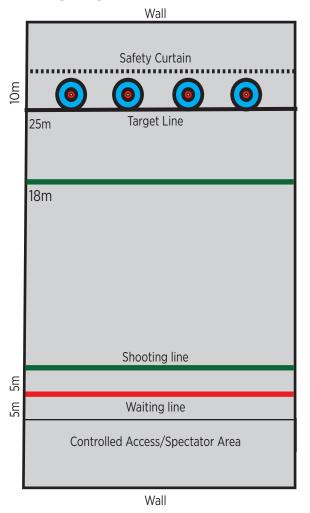
There are safe paths for judges, medical personnel and to allow for transportation of equipment round the course while shooting is in progress.

The course is not positioned higher than 1800m above sea level and the maximum difference between the highest and the lowest point in a course is no more than 100m.

The targets are laid out in such order as to allow maximum variety and best use of the terrain. In the finals round two butts are placed side by side at each target on which a 60cm or 80cm target face is placed.

At all targets, one shooting peg for each distance is placed in such a way as to allow at least two athletes to shoot at the same time from either side of the shooting peg.

Indoor target range



All shooting pegs are marked with the distance when marked distances are to be shot. The shooting pegs have different colours, corresponding to each group of categories as follows:

- Blue for the Barebow, Cadet Recurve and Cadet Compound.
- Red for the Recurve and Compound.
- Yellow for the Cadet Barebow.
 The tolerances are:
- For distances 15m or less ±25cm.
- For distances between 15-60m ±1m. The correct distance is marked on the shooting peg. The distance is measured in the air approximately 1.5-2m above the ground.

The butts provide for a margin of at least 5cm outside the lowest scoring zone of the face placed upon it. At no point may any target face be less than 15cm from the ground. In all instances, regardless of the terrain, the buttress is placed perpendicular to the athlete's line of sight from the shooting peg in order to present the target face's full picture.

All targets are numbered in succession. The numbers are 20cm tall. The colours are black on yellow or yellow on black and placed 5-10m before reaching the shooting pegs for that target.

The target numbers function as the waiting area for the athletes of the group waiting for their turn to shoot. The other members of the group shooting can be forward of the number board to assist with shading as necessary. From the waiting area it should be possible to see if anybody is standing at the peg.

Faces shall not be placed over any larger face, nor any marks on the butts or in the foreground that could be used as points of aim.

Clearly visible direction signs indicating the route from target to target are placed at adequate intervals to ensure safe and easy movement along the course.

Suitable barriers are placed around the course to keep spectators at a safe distance while still giving them the best possible view of the competition. Only those persons having the proper accreditation are allowed on the course inside the barriers.

The assembly area contains:

- A communication system allowing contact with the chairperson of the Tournament Judge Commission and the organiser.
- Adequate shelter for team officials.
- Separate shelter for the Jury of Appeal and the chairperson of the Judge Commission.
- Guarded shelter for the athletes gear and spare equipment.
- Practice targets on the competition days near the assembly point for the athletes.

Flight archery

The object of fight archery is to propel an arrow as far as possible. Six shots constitute a flight shoot.

Range layout

The shooting range is to be as flat as possible.

The landing area, defined as any ground on which the arrows are expected to land, must be at least 200m wide. This area is free of obstructions and hazards such as trees, buildings, fences, ditches etc and provide where possible, turf favourable for arrows to lodge into and be readily visible.

A shooting line 20m long is marked on the ground and one metre in front of this is the foul line.

An area 20m long by 5m wide is roped off behind the shooting line with access through a 1 metre gateway. This is the equipment area.

A central line is marked on the ground from what is considered to be the minimum distance that will be shot, to 100m beyond the furthest distance expected to be recorded. Stakes are placed at nominal 100m intervals along the central line and are appropriately marked.

Clout archery

Clout archery is popular because of its fun aspect. Archers shoot their targets in the air attempting to land the arrows in the target.

Range layout

All athletes competing in the same division will, where possible, shoot on the same target. Ideally there is a maximum of twenty five athletes per target. If more than one target is required, the allocations for each target are as nearly equal as possible. There is a clear space between the outer clout scoring flags (white flags) of adjacent clout targets of not less than 5m. Clout scoring zones shall not overlap when viewed from the Shooting Line.

The targets are consecutively numbered with a number positioned to the right side of the clout so it will not be hit by athletes' arrows and big enough that it is clearly visible from the shooting line

A corresponding target number is also placed in front of the shooting line in the centre of the target lane.

The preferred shooting direction is south, although this will depend upon the available venue. For safety there is a common shooting line, although if a staggered shooting line is required no athlete will shoot over the head of another athlete and there is be a minimum of 10m between the flight path of the arrow of the athlete on the longer distance and the athletes on the shooting line of the adjacent shorter distance.

The field of play is squared off, with a shooting line marked on the ground at right angles to the direction of shooting and are long enough to permit each athlete to have a minimum one metre of space on the shooting line.

A waiting/equipment line is marked 5m behind the shooting line. The athletes' equipment is kept behind the waiting line until the Director of Shooting gives the signal to come forward and commence shooting. Spotting scopes may be left on the Shooting Line at all times.

A spectator line is marked 10m behind the waiting/equipment line.

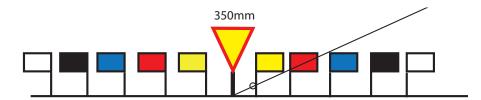
A 3m line is marked in front of the shooting line.

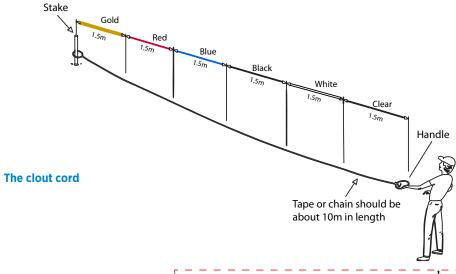
References

World Archery Federation Lausanne, Switzerland World Archery Rulebook 24 July 2014 Books 3 and 4. http://www.worldarchery.org/HOME/Rules/Constitution-Rules

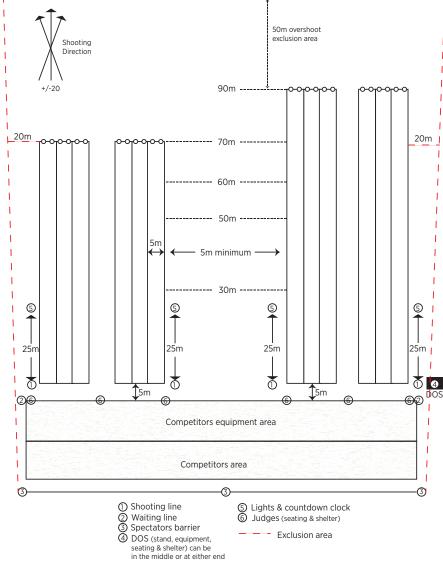
Archery Australia Inc ACT Constitution and Shooting Rules May 2014 https://archeryaustralia.app.box.com/s/zm5wsa4kshobm9dgw711

The clout target





Archery range layout minor events



Athletics

Sports facilities for track and field athletics are generally used for daily training as well as for staging regional or local competitions. The staging of competitions at higher levels normally entails more extensive requirements for the sports facility, particularly in respect of the infrastructure.

Generally athletics tracks are multi-purpose with the interior of the 400m track used as a pitch for soccer, gridiron and rugby. These tracks are also used for non-sporting events such as concerts and public assemblies.

The IAAF Track and Field Facilities Manual 2008 (the Manual) stipulates dimensions and equipment for international and other high class competition by elite athletes. For club and school competitions, the dimensions of horizontal jumps landing areas, distance to take-off boards, the lengths of runways, dimensions of landing areas etc may be reduced. The safety of athletes must be paramount in making such decisions. If you are in doubt as to what is appropriate consult your state sporting association.

Track events

Track events include sprint, middle distance, hurdle and steeplechase events. The 400m oval track forms the basis of a multi-sports arena and its dimensions are dependent on the requirements of other sports.

The competition area for track events includes the following:

- Oval track with at least four lanes and safety zones measuring no less than 1m on the inside and outside.
- Straight with minimum of six lanes for sprints and hurdles.
- Steeplechase track as for oval track with a permanent water jump.

There are three basic types of track surface—synthetic, unbound mineral (cinder) and grass.

400m Standard track

The 400m Standard Track (the Track) has straight and curved sections of almost equal length and uniform bends which are most suitable to the running rhythm of athletes. Furthermore, the area inside the track is large enough to accommodate all throwing events and also a standard football (soccer) pitch (68m x 105m).

The Track comprises 2 semicircles, each with a radius of 36.50m, which are joined by two straights, each 84.39m in length.

The Track has 8, 6 or occasionally 4 lanes but the last is not used for international running competition. All lanes have a width of 1.22m ± 0.01m.

Page 35 of the Manual Setting out the 400m standard Track section 2.2.1 shows in detail the setting out plan and dimensions of the 400m standard track.

Marking of the 400m standard track

All track markings must be in accordance with the IAAF 400m Standard Track Marking Plan (Figure 2.2.1.6a attached in the Manual).

- All lanes are marked by white lines. The line on the right hand side of each lane, in the direction of running, is included in the measurement of the width of each lane.
- All start lines (except for curved start lines) and the finish line are marked at right angles to the lane lines.
- Immediately before the finish line, the lanes are marked with numbers with a minimum height of 0.50m.
- All markings are 0.05m wide.
- All distances are measured in a clockwise direction from the edge of the finish line nearer to the start to the edge of the start line farther from the finish.
- The data for staggered starts for the Track (constant lane width of 1.22m) is shown in the table below.

References

IAAF technical regulations. http://www.iaaf.org/about-iaaf/documents/technical

Data for staggered starts for 400m Standard Track

Distance	Bend	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8
200m	1	3.519	7.352	11.185	15.017	18.850	22.683	26.516
400m	2	7.038	14.704	22.370	30.034	37.700	45.366	53.032
800m	1	3.526	7.384	11.260	15.151	19.061	22.989	26.933
4 x 400	3	10.564	22.088	33.630	45.185	56.761	68.355	79.965

Start lines

The essential requirement for all start lines, straight, staggered or curved, is that the distance for every athlete, when taking the shortest permitted route, is the same, and not less than the stipulated distance with no negative tolerance.

- For races of 800m or less, each athlete has a separate lane at the start.
- Races of up to, and including 400m are run entirely in lanes.
- Races of 800m start and continue in lanes until the end of the first bend.

The exit from the first bend is marked distinctively with a 0.05m wide line (breakline) across the track to indicate when the athletes can break from their lanes.

To assist athletes to identify the breakline, small cones or prisms (0.05m x 0.05m) and no more than 0.15m high,preferably a different colour from the breakline and the lane lines, are placed on the lane lines immediately before the intersection of each lane and the breakline.

Races over 800m are run without lanes using a curved start line.

For the 1000m, 2000m, 3000m, 5000m and 10,000m, when there are more than 12 athletes in a race, they are divided into two groups with one group of 65% of the athletes on the regular arced start line and the other group on a separate arced start line marked across the outer half of the track. The other group runs as far as the end of the first bend on the outer half of the track.

The separate arced start line is marked so that all the athletes run the same distance. A cone or other distinctive mark is placed on the inner line of the outer half of the track at the beginning of the following straight to indicate to the athletes of the outer group where they are permitted to join the athletes using the regular start line. For the 2000m and 10,000m this point is at the intersection of the 800m break line and the inner line.

4 x 400m relay races

For the 4 x 400m relay races, the starting positions for the first athletes in each lane are shown in IAAF 400m Standard Track Marking Plan on the next page.

The scratch lines of the first takeover zones are the same as the start lines for the 800m. Each take-over zone is 20m long of which the scratch line is the centre. The zones start and finish at the edges of the zone lines nearest the start line in the running direction.

The take-over zones for the second and last take-overs are marked 10m either side of the start/finish line.

The arc across the track at the entry to the back straight showing the positions at which the second stage athletes are permitted to leave their respective lanes, are identical to the breakline arc for the 800m event.

Hurdles

The standard 400m track and the sprint track with 100m and 110m are used for hurdle races. The hurdle positions are marked on the track by lines 100mm x 50mm so that the distances measured from the start to the edge of the line nearest the approaching athlete are in accordance with the table below.

The hurdles are placed so that the edge of the bar nearest the approaching athlete coincides with the edge of the track marking nearest the athlete.

Steeplechase track

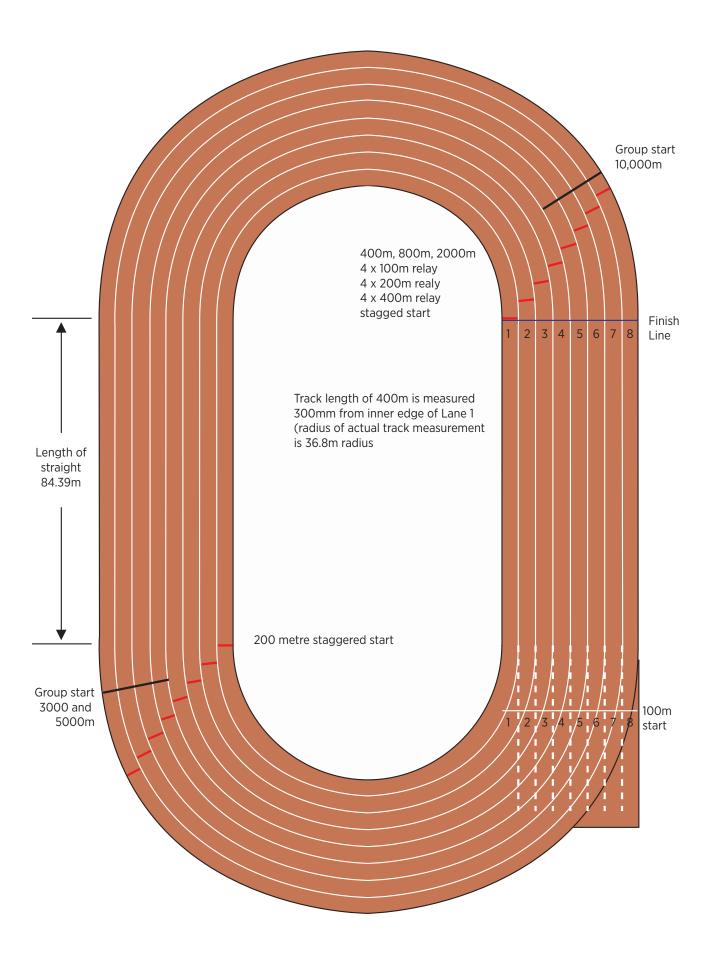
Section 2.2.4 of the Manual outlines the integration into the 400m Standard Track and layout of hurdles and water jumps for steeplechase events.

Hurdle number, height and position

Event	Height of hurdle ²	Distance from start line to 1st hurdle	Distance between hurdles	Distance from last hurdle to finish line ³	Number of hurdles
110m Men	1.067	13.72	9.14	14.02	10
110M Junior men	0.991	13.72	9.14	14.02	10
110m Youth boys	0.914	13.72	9.14	14.02	10
100m Women/junior	0.838	13.00	8.50	10.50	10
100m Youth girls	0.762	13.00	8.50	10.50	10
400m Men/junior	0.914	45.00	35.00	40.00	10
400m Youth/boys	0.838	45.00	35.00	40.00	10
400m Women/junior/youth	0.762	45.00	35.00	40.00	10

² ± 0.003

 $^{^{3}}$ ± 0.01 for 100m and 110m; ± 0.03 for 400m



Jumping events

The Jumping events are long jump, triple jump, high jump and pole vault.

Long jump

The long jump facility includes a runway, a take-off board and a landing area. Usually, it is placed outside the track along one of the straights with two adjacent runways with a landing area at each end. This allows competition in either direction by two groups of athletes simultaneously.

Runway

The runway is 40m minimum long, 1.22m ± 0.01m wide and is measured from the beginning of the runway to the take-off line. It is marked by white lines 0.05m wide or broken lines 0.05m wide, 0.10m long and 0.50m apart. The runway is usually covered with the same surface as the track.

Take-off board

The take-off board is a white rectangle and measures $1.22m \pm 0.01m$ long and $0.20m \pm 0.002m$ wide and not more than 0.10m deep. The surface of the take-off board must be flush with the surface of the runway.

In the case of a runway with a permanent surface, this requires a built-in installation tray made of corrosion protected metal in which the take-off board is correctly positioned. During sport free periods, the take-off board can be removed. If it has a track surface on its reverse side, it can be turned over and used as part of the runway. This makes it possible to combine the long and triple jump with two or three take-off boards (which can be used on both sides) on a triple jump runway.

Landing area

The landing area is 7-9m long depending on the distance between its nearest end and the take-off line. It is 2.75m wide. Generally, a landing area 8m long placed 2m from the take-off line is recommended. The landing area is placed so that the middle of the runway coincides with the middle of the landing area.

If two landing areas are situated parallel side by side or staggered, the distance between them is at least 0.30m.

The landing area has a border not less than 0.05m wide and 0.30m high, rounded off towards the inside (eg wooden plank or concrete border with soft covering) and level with the ground.

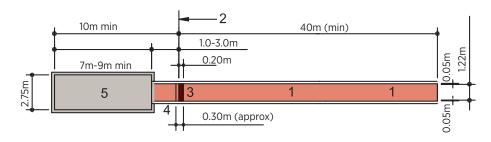
The landing area has a water permeable substructure or a suitable drainage system (draining well or canal connection) and filled with sand to a depth of not less than 0.30m at the edges and slightly deeper at the centre.

The top edge of the border of the landing area, generally also dictates the level of the sand, which must be level with the take-off board.

Triple jump

With the exception of the placement of the take-off board, the same facilities are used for triple jump as for long jump. For international competition, it is recommended that the take-off board is not less than 13m for men and 11m for women from the nearer end of the landing area. For other competitions, this distance is appropriate for the level of competition.

Long jump and triple jump facility



- 1 Runway
- 2 Take-off line
- 3 Take-off board
- 4 Built-in tray
- 5 Landing area
- 21m min

 8m-9m min

 11m-13.0m

 0.20m

 5

 1 0.30m (approx)

Pole vault facility

Layout

The pole vault facility includes a runway, a box for inserting the pole, two uprights with crossbar and a landing area. It can be located either outside the track, parallel to one of the straights or within one of the segments.

When located outside the track, it is usually constructed as a symmetrical facility with one landing area in the middle of two runways. When located within a segment, it is usually constructed with two parallel runways with positions for landing areas at each end.

Runway for pole vault with box

The runway is a minimum of 40m long and is measured from beginning of the runway to the 0-line. The runway is $1.22m \pm 0.01m$ wide.

It is marked by white lines 0.05m wide or broken lines 0.05m wide with a length of 0.1m and a distance of 0.5m. At the end of the runway, the box is mounted flush with the runway and installed such that the top inside edge of its end board lies on the 0-line and at the same height. The 0-line is marked by a white line, 0.01m wide which extends beyond the outside edges of the uprights.

Uprights

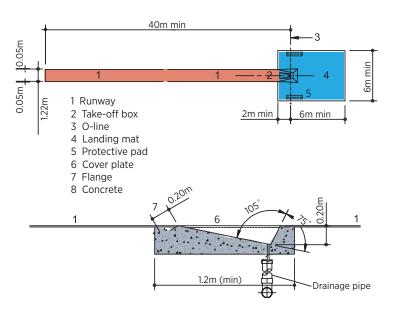
The two uprights must be installed on horizontal bases, level with the 0-line, such that each can be moved from the 0-line not less than 0.80m towards the landing area (eg on a built-in double rail) or in fixed sockets with movable cross bar supports.

They are not less than 5.20m apart with approximately 0.10m between each upright and the landing mat. The lower part of the uprights are covered with appropriate padding to protect the athletes and their poles. The landing mats are recessed to take the uprights and any horizontal bases.

Landing mats

The landing mats are the same as for the high jump, except for the dimensions.

For major international competitions, the landing area is a minimum of 6m long (excluding the front pieces), 6m wide and 0.80m high. The front pieces must be at least 2m long. The sides of the landing area nearest to the box are 0.10m-0.15m from the box and slope away from the box at an angle of approximately 45°. For other competitions, the landing area is not less than 5m long (excluding the front pieces) x 5m wide.



High jump facility

Layout

The high jump facility includes a semicircular runway, a takeoff area, two uprights with cross bar and a landing area. By temporarily removing sections of the kerb, it is possible to use the oval track as part of the runway. For major championships, the high jump facility must be large enough so that two high jumps can be conducted simultaneously.

Runway

The semicircular runway, with a radius of at least 20m, will permit approaches from every direction. If it is necessary to remove the kerb temporarily in order to be able to use the oval track as a runway, care must be taken to ensure that the heights of the surfaces of the oval track and the segment are the same along the track border.

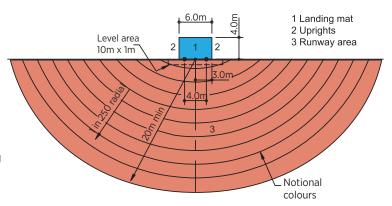
The runway and take-off areas are usually covered with the same surface as the track.

Uprights

They must be $4.02m \pm 0.02m$ apart.

Landing area

The landing mats measure not less than 6m x 4m and are covered by a spike proof protective mat. The overall height is a minimum 0.70m.



Throwing events

The throwing events are discus, hammer, javelin and shot put.

Discus throw

Layout

The discus throw includes a throwing circle, protective cage and landing sector. They are located near the ends of the back straight and the landing sector is located in the grass area inside the track.

The facility for discus throw, near the 1500m start, is usually combined with a facility for hammer throw. The only difference is the diameter of the throwing circle is 2.50m for discus throw and 2.135m for hammer throw. The protective cage must meet the more stringent requirements for hammer throwing. If two separate discus and hammer circles are placed within the hammer protective cage then the discus throw circle is the circle closer to the landing sector.

Throwing circle

The throwing circle is made of band iron, steel or other suitable material, the top of which is flush with the ground outside or the synthetic surface or concrete surround. The interior of the circle is constructed of concrete and must not be slippery.

Further information on the construction of the throwing circle is in Section 2.4.1.2 of the Manual, page 59.

Safety cage

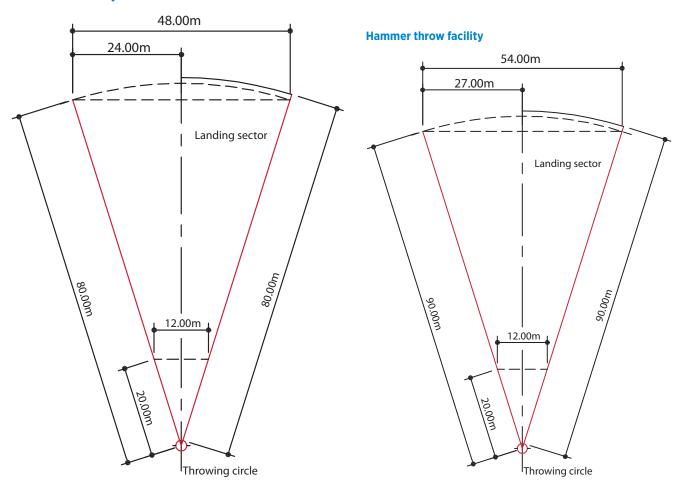
Frequently discus and hammer are thrown from a combined facility. In those instances the higher standards required for hammer throwing apply to the protective cage design. To provide greater safety it is desirable to extend the netting on the side of the cage nearer to the track further than 7m from the centre of the circle and/or increase the height of the netting for the last 2m.

Landing sector

The landing sector consists of cinders or grass or other suitable material with an even surface soft enough to ensure that the place of the initial fall of the implement can be clearly established by the judges. The landing surface must not allow the implement to bounce backwards, thus creating a risk that the measuring point is obliterated.

The landing sector is laid from the middle of the circle with an angle of 34.92 degrees and marked by 0.05m wide white lines, the inside edges which form the boundary of the sector. The length of the sector is 80m. Its angle of 34.92 degrees will be attained if the two sector lines at a distance of 80m are spaced 48m apart.

Discus throw facility



Hammer throw

Layout

The hammer throw facility includes a throwing circle, a protective cage and a landing sector. It is usually combined with the facility for discus throw.

Throwing circle

The circle for the hammer throw is slightly smaller than the discus throw.

The surface finish to the concrete circle is slightly smoother for hammer throwing than for discus throwing. When a circle is used for both discus and hammer throwing a compromise finish is required.

See section 2.4.2.2 of the Manual for further information.

Safety cage

Hammer and discus must only be thrown from an enclosure or cage to ensure the safety of spectators, officials and athletes.

Cages specified in the manual are intended for use in major stadia in high class competition when the event takes place outside the arena with spectators present or when the event takes place in the arena and other events are taking place at the same time. Simpler and smaller cages may be adequate for competition of lower standard and for well regulated training facilities.

Further information is available from section 6.3.2 of the Manual.

Landing sector

The length of the landing sector is 90m. The angle of 34.92 degrees is attained if the two boundary lines 90m in length, are spaced 54m apart.

Javelin throw

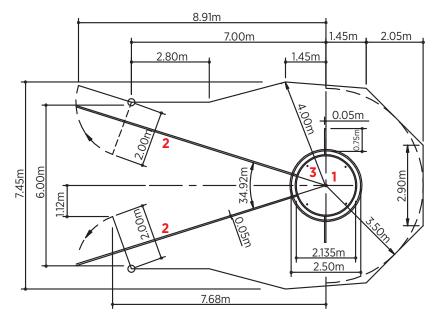
Layout

The javelin throw facility includes a runway, a throwing arc and a landing sector. Since the length of the runway exceeds the space available in the segment, it is usually extended across the track and track border.

It is necessary to have a removable kerb and the height of the surfaces of the oval track and the segment must be the same along the track border. For a runway in either segment, the landing sector is located in the grass area inside the track.

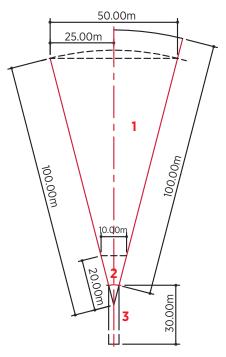
The runway is 30m minimum long and measured from the beginning of the runway to rear edge of the side markings outside the runway at the same level as the throwing arc. It is marked by two parallel white lines 0.05m wide and 4m apart. The runway is covered with the same surface as the track.

Combined discus and hammer throw facility



- 1 Centre point
- 2 Marking for landing sector
- 3 Demountable hammer insert

Javelin throw facility



- 1 Landing sector
- 2 Throwing arc
- 3 Runway

Throwing arc

The throwing arc is situated at the end of the runway. It is painted or made of wood (3 to 5 weatherproof, bonded layers) or a suitable non-corrodible material like plastic. If not marked with paint, it must be installed flush with the surface of the runway.

The throwing arc is 0.07m wide, white and curved with a radius of 8m from the centre point in the middle of the runway, in the throwing direction. It is advisable that the centre point is marked with a synthetic plug of a different colour to the surface, with a diameter and surface thickness of 20mm-30mm. Lines are drawn from the extremities of the arc at right angles to the parallel lines marking the runway. These lines are white, 0.75m in length and 0.07m wide.

Landing sector

The sector lines are laid from the centre point on the runway through the crosspoints of the throwing arc and the lines of the runway. The length of the sector is 100m. At this distance the inner edges of the sector lines are 50m apart. The marking of the sector lines extends to a distance appropriate to the competition.

Shot put

Layout

The shot put facility includes a throwing circle, a stop board and a landing sector.

The landing sector is usually located in the grass area inside the track.

Throwing circle

The inside diameter of the throwing circle is $2.135m \pm 0.005m$.

Stop board

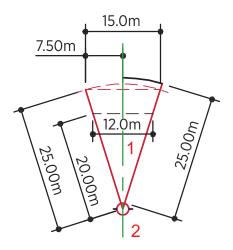
The stop board is painted white and made of wood or other suitable material in the shape of an arc so that the inner edge coincides with the inner edge of the circle. It is placed midway between the sector lines and firmly fixed to the ground. It measures $1.21m \pm 0.01m$ long on the inside. The width at the narrowest point is $0.112m \pm 0.002m$ and the height is $0.10m \pm 0.002m$ measured above the adjoining surface of the circle when the stop board is firmly in position.

Landing sector

The length of the sector is 25m. The angle of 34.92 degrees is attained if the two sector lines, at a distance of 25m, are spaced 15m apart.

Shot put facility

Setting out plan



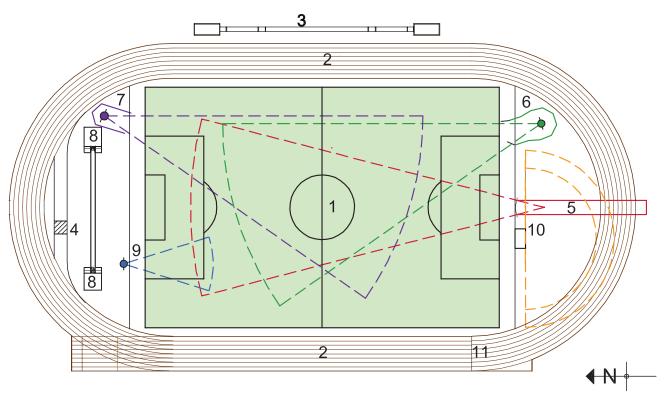
- 1 Landing sector
- 2 Throwing circle

Standard competition layout

This diagram is the layout recommended by the IAAF as Standard Competition Area.

The field events are evenly distributed over the arena to avoid congestion and to satisfy the needs of the spectators. This layout avoids undue disruption of events by ceremonies and counterbalances the concentration of interest in the finish area.

The layout is flexible. Local climatic conditions particularly wind conditions and the effects of the rays of the sun on jumpers and vaulters must be considered.



- 1. Football (soccer) pitch
- 2. Standard track
- 3. Long and triple jump facility
- 4. Water jump
- 5. Javelin throw facility
- 6. Discus and hammer throw facility
- 7. Discus throw facility
- 8. Pole vault facility
- 9. Shot put facility
- 10. 10 High jump facility
- 11. Finish line
- 12. High jump facility

References

IAAF Track and Field Facilities Manual 2008 Edition updated 12 December 2014. Chapters 1-3 and Chapters 4-8. http://www.iaaf.org/about-iaaf/documents/technical

Little Athletics

For sport days or inter school carnivals, one of the most important requirements is a clearly and accurately marked track and field.

When preparing the layout to a track, several points need to be taken into consideration:

- All judges and timekeepers must have a clear view of the starts and the starter.
- Judges and timekeepers should not be looking into the sun approaching the finish line.
- Runners should not have to look into the sun as they approach the finish line.
- All races are in an anti-clockwise direction so that all field events are kept on the left hand side of the runners.
- The jumps and throwing events are placed so that the sun is not in the eyes of the competitors at crucial times.
- The safety of all competitors and officials is always the prime consideration. It is recommended to place the throwing zones for these events so that the athletes throw towards the centre of the field.

The centre of the field becomes a recognised zone from which all persons except relevant officials are excluded. Throwing zones may overlap. However, if zones are overlapped then events must not be held simultaneously.

Where possible, the facility should comply with specifications laid out within the IAAF Track and Field Facilities Manual 2008.

Line marking

Generally a line-marking machine is used to mark lanes, starts, finishes etc. The standard line width is 5cm.

Paint

There are several ways to mark the lines:

- Kerosene—this is the cheapest form of line marking. It leaves a clear line of dead grass and bare soil for a complete season.
- Powdered lime—the lime is mixed with water prior to application.
 The white line produced does wash away with heavy rain or watering.
- Semi-permanent line—a mixture of water-based white plastic paint and water. This can last for several weeks.
- Kerosene and paint—use kerosene three weeks prior to the event and then line with white plastic paint mixture a couple of days before the event starts.

Track events

The following events are conducted entirely in lanes—70m, 100m, 200m, 400m, 4x100m relay and all hurdles races.

For international competitions, the 800 metre event is run from a staggered start and the runners stay in their lanes until the end of the first bend.

For competitions at most other levels, the event is run from a curved start and competitors may change lanes immediately. A curved start gives each competitor an equal distance to run around the first bend and allows more than eight competitors to compete in the same race.

The 1500 and 3000 metre events commence from a curved start, which is produced in the same manner as the 800-metre curve start.

A 400-metre hurdle event is often included for older age groups. For most hurdle events, the 100m track on the main straight is usually used. Further starting lines will be necessary for the conducting of hurdle events over 80m, 90m and 110m.

Throwing events

Shot put and discus

The dimension of the circles used for shot put and discus, and the runway used for javelin conform to the specifications set out in the IAAF Track & Field Facilities Manual.

In most school competitions, these official throwing specifications may be difficult to conform to and a circle with an inside diameter of 2.135m on a hard ground with the above stopboard is acceptable.

The landing sector consists of cinders, grass or a suitable material on which the shot makes an imprint.

The landing sector is marked with lines at an angle of 34.92 degrees such that the lines, if extended, would pass through the centre of the circle. These lines are 5cm wide.

Javelin

The minimum length of the runway is 30-36.5m and marked by two parallel lines 4m apart. The throw is made from behind an arc of a circle drawn with a radius of 8m. The arc consists of a line painted on the ground, or a strip made of metal or wood and painted white. Lines are drawn from the extremities of the arc right angles to the parallel lines marking the runway. These lines are 75cm long and 7cm wide.

Jumping events

High jump

The run up to the high jump is not usually marked, but a 25m fan-shaped radius will provide an adequate space regardless of the style of jump being attempted. Marking a run up area for the high jump will help to prevent noncompetitors to remain out of the area. The angle of the fan is not critical and 130-140 degrees is usually adequate.

Behind the bar, a 5m x 3m deeply padded landing area is provided.

Long jump and triple jump

The runway should be at least 1.22 metres wide and at least 40 metres long to the edge of the take-off board. Where conditions permit, this minimum length should be 45 metres. In school competitions this is not often marked, but it is recommended that it be marked to clearly identify the competition area.

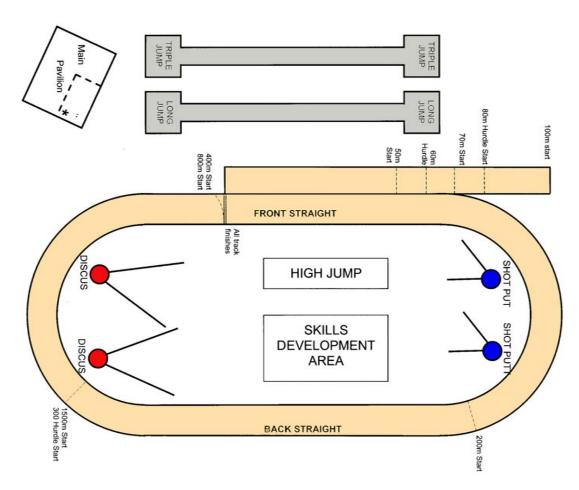
The take-off board is 1.22 metres long across the runway and placed between 1m and 3m from the nearest edge of the landing area. The board is 20cm from front to back and about 10 cm deep, sunk so that the top surface is flush with the surface of the surrounding ground. It should be painted white to make it plainly visible to competitors.

The landing area is a sand pit between 2.75m and 3m wide and approximately 10m long, positioned between 1m and 3m from the take-off board. The surface of the sand must be level with the surface of the runway and take-off board. The runway must project centrally to the sand pit. The depth of the sand pit is not subject to official specification, but 50 centimetres could be sufficient to allow safe landings.

Specifications for the triple jump are the same as for the long jump, except that the runway is lengthened between the take-off board and the landing area to ensure that jumpers land in the pit and not through it. It is recommended that the same runway and landing area be used as for the long jump, but with take-off boards at additional positions of one metre intervals, beginning at 6m from the pit to accommodate different abilities, with a maximum board of 13m.

References

Little Athletics Western Australia Rules for Competition 2014/2015. https://assets.imgstg.com/assets/ console/document/documents/20141124062601JETSTAR_WALA_RULEbook_revised_September_2014_LM.pdf
Marking an Athletics Field. Athletics Australia
Star Interactive. Athletics Australia. www.
walittleathletics.com.au/Portals/49/Resources/Gen_MarkingAnAthleticsField.pdf



Badminton

Dimensions

The badminton court is 13.4m long and 6.1m wide. For singles the court is marked 5.18m wide.

The lines marking out the court are easily distinguishable and coloured white or yellow. The lines are 40mm wide.

A court may be marked out for singles only. The back boundary lines also become the long service lines and the posts or the strips of material representing them are placed on the side lines.

The diagonal full length of the full court is 14.366m.

Posts

The posts are 1.55m high from the surface of the court and remain vertical when the net is strained.

The posts are placed on the double side lines irrespective of whether singles or doubles is played. The posts or supports must not extend into the court beyond the side lines.

Where it is not practicable to have posts on the side lines, some method can be used to indicate the position of the side lines where they pass under the net, eg by the use of thin posts or strips of material 40mm wide, fixed to the side lines and rising vertically to the net cord.

Net

The net is 760mm in depth and a minimum of 6.1m wide.

The top of the net from the surface of the court is 1.524m at the centre of the court and 1.55m over the side lines for doubles.

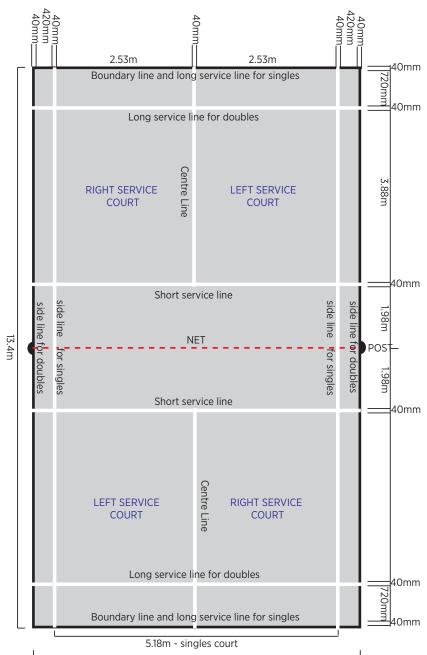
There must be no gaps between the ends of the net and the posts. If necessary, the full depth of the net at the ends is tied to the posts.

References

Badminton World Federation's Handbook II 2014/15

- Laws and General Competition Regulations
- Section 1A Laws of Badminton. http://www.badmintonwa.org.au/About-the-game/Rules-and-Regulations.aspx

Badminton court



6.1m - doubles court

Baseball

The regulation field is used for the Open, Under 18 and Under 16 age groups. A modified field is used for Little League and Under 14.

The playing field

The infield (also called diamond) is a 27.4m square and is graded so that the baselines and home plate are level.

The infield and outfield, including the boundary lines, are fair territory and all other areas are foul territory.

The minimum distance from home base to the nearest fence, stand or other obstruction on fair territory is 76.2m.

The pitcher's plate is 10 inches above the level of home late. The degree of slope from a point 6 inches in front of the pitcher's plate to a point 6 feet toward home plate is 1 inch to 1 foot and is uniform.

It is preferred that the line from home base through the pitcher's plate to second base runs eastsoutheast.

Measurements of distances to the bases are as following:

- Home base to second base 38.8m.
- Home base to first base 27.4m.
- Second base to first base 27.4m.
- Home base to third base 27.4m.
- Second base to third base 27.4m.
- First base to second base 27.4m.
- Distance between first and third base is 38.8m.

The foul lines and all other playing lines are marked with paint or non-toxic, non-burning chalk or other white material.

Home plate

Home base is a five-sided slab of white rubber. It is a 3.2cm square with two corners removed. This means one edge is 3.2cm long, two adjacent side are 21.5cm and the remaining two sides are 30.48cm and set at an angle to make a point.

The base is fixed in the ground level with the ground surface.

Bases

First, second and third bases are marked by white canvas bags or rubber covered bags, attached to the ground. The first and third base bags are entirely with the infield. The second base bag is centred on second base. The bags are 38.1cm square and filled with soft materials.

Pitching mound and plate

The pitching mound is a 5.49m circle, centre of which is 18.39m from the rear of home plate.

The pitcher's plate is a rectangular slab of white rubber, 61cm by 15cm. It is set in the ground so that the distance between the pitcher's plate and home base (the rear point of home plate) is 18.39m.

Little League and Junior League

Playing facilities

The following are the minimum facility requirements for all levels of Little League and Junior League baseball under Baseball WA.

- Base paths, including first base tramlines to be clearly marked.
- First and third foul lines clearly marked for a minimum of 50m from first and third bases respectively.
- Flagpoles, a minimum height of 1.5m are to be positioned at the extremities of the foul lines.
- First, second and third bases and pitching rubber to be pinned.
- Pitching mounds mandatory in all player grades.
- Mandatory back net (minimum 4m wide and 3m high).
- Designated dead ball line from edges of the back net and parallel to the first and third baselines (white marking is acceptable).
- Home run fence using plastic cones is mandatory if a fence at the required distance is not available.

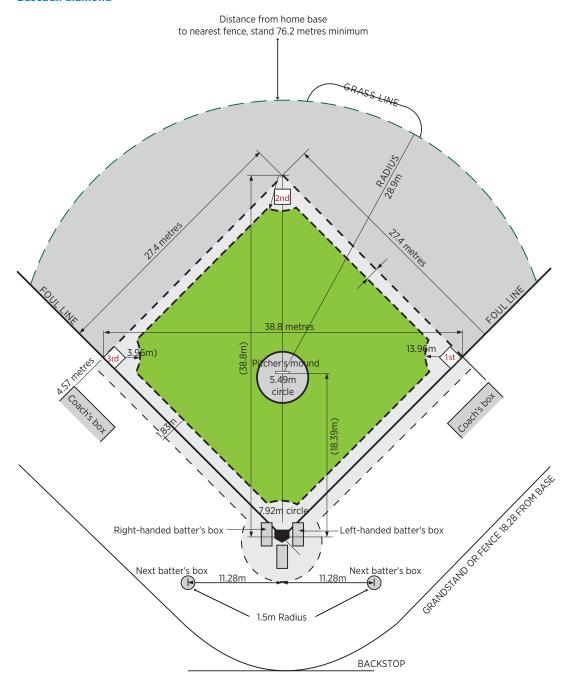
Age limitations for Little League and Junior League

Little League Major and All Star League	9 to 12 years old inclusive
Little League Minor—player pitch (PP)	8 to 12 years old inclusive
Little League Minor—machine pitch (MP)	7 to 10 years old inclusive
Intermediate League	11 to 13 years old inclusive
Junior League	12 to 14 years inclusive

Ground dimensions and set-up for Little League and Junior League

	Little League Major and minor—PP*	Little League Minor—MP**	Junior League 70	Junior League 80 and JL All Stars
Base paths	18.28m	18.28m	21.33m	24.38 feet
Pitching distance	14.02m	14.02m	15.24m	15.24m
Home run fence/cones	60m from home plate	50m from home place	76.2m from home plate	91.4 feet from home place
Back net (recommended)	Max 10m from home plate	Max 10m from home plate	Min 15m from home plate	Min 15m from home plate

Baseball diamond



References

Australian Baseball Official Australian Baseball Rules 7th Edition 2014. http://baseball.com.au Baseball WA Little League/Junior League Clubball By-laws 2014/2015. Little League Western Australia. https://sitedesq.imgstg.com/assets/siteDesg/20476/documents/LL-ByLaws-201415-final.pdf

Basketball

The International Basketball Federation (FIBA) is the international governing body for basketball. FIBA has introduced 3x3 as an official basketball discipline to increase grassroots participation in basketball.

Court dimensions

The court is a flat, hard surface free from obstructions, 28m long and 15m wide, measured from the inner edge of the boundary line.

The backcourt is the team's own basket, inbounds part of the backboard and the part of the playing court limited by their own endline, side lines and centre line.

The front court consists of the opponents' basket, inbounds part of the backboard and the part of the playing court limited by the endlines behind the opponents' basket, side lines and inner edge of the centre line nearest to the opponents' basket.

Lines

All lines are white, 5cm wide and clearly visible.

Boundary line

The playing court is limited by the boundary line, consisting of endlines and the side lines. These lines are not part of the playing court.

Any obstruction including seated team bench personnel is at least 2m from the playing court.

The court is marked by a further boundary line in a contrasting colour and is 2m wide minimum.

The colour of the further boundary line must be the same as that of the centre circle (if painted) and the restricted areas.

Centre line, centre circle and free throw semi-circles

The centre line is marked parallel to the endlines from the midpoint of the side lines. It extends 0.15m beyond each sideline. The centre line is part of the backcourt.

The centre circle is marked in the centre of the playing court and has a radius of 1.80m measured to the outer edge of the circumference. If the inside of the centre circle is painted, it must be the same colour as the restricted areas.

The free throw semi-circles are marked on the playing court with a radius of 1.80m measured to the outer edge of the circumference and with their centres at the midpoint of the free throw lines.

Free throw lines, restricted areas and free throw rebound places

The free throw line is drawn parallel to each endline. Its furthest edge is 5.8m from the inner edge of the endline and is 3.6m long. Its midpoint lies on the imaginary line joining the midpoint of the two endlines.

The restricted areas are the rectangular areas marked on the playing court limited by the endlines, the extended free throw lines and the lines which originate at the endlines. Their outer edges are 2.45m from the midpoint of the endlines and terminates at the outer edge of the extended free throw lines. These lines, excluding the endlines, are part of the restricted area. The inside of the restricted areas must be painted in one colour.

3-Point field goal area

The team's 3-point field goal area is the entire floor area of the playing court, except for the area near the opponents' basket, limited by and including:

- The 2 parallel lines extending from and perpendicular to the endline, with the outer edge 0.90m from the inner edge of the side lines.
- An arc of radius 6.75m measured from the point on the floor beneath the exact centre of the opponents' basket to the outer edge of the arc. The distance of the point on the floor from the inner edge of the midpoint of the endline is 1.575m. The arc is joined to the parallel lines.

The 3-point line is not part of the 3-point field goal area.

Team bench areas

The team bench areas are marked outside the playing court limited by 2 lines. There must be 14 seats available in the team bench area for the team bench personnel which includes coaches, assistant coaches, substitutes, excluded players and team followers. Any other persons must be at least 2m behind the team bench.

Throw in lines

The two lines are 0.15m long and marked outside the playing court at the sideline opposite the scorer's table. The outer edge of the lines are 8.325m from the inner edge of the nearest endline.

No charge semi-circle areas

The no charge semi-circle lines are marked on the playing court, limited by:

 A semi-circle with the radius of 1.25m measured from the point on the floor beneath the exact centre of the basket to the inner edge of the semi-circle.

The semi-circle is joined to:

 Two parallel lines perpendicular to the endline, the inner edge
 1.25m from the point on the floor beneath the exact centre of the basket, 0.375m long and ends
 1.20m from the inner edge of the endline.

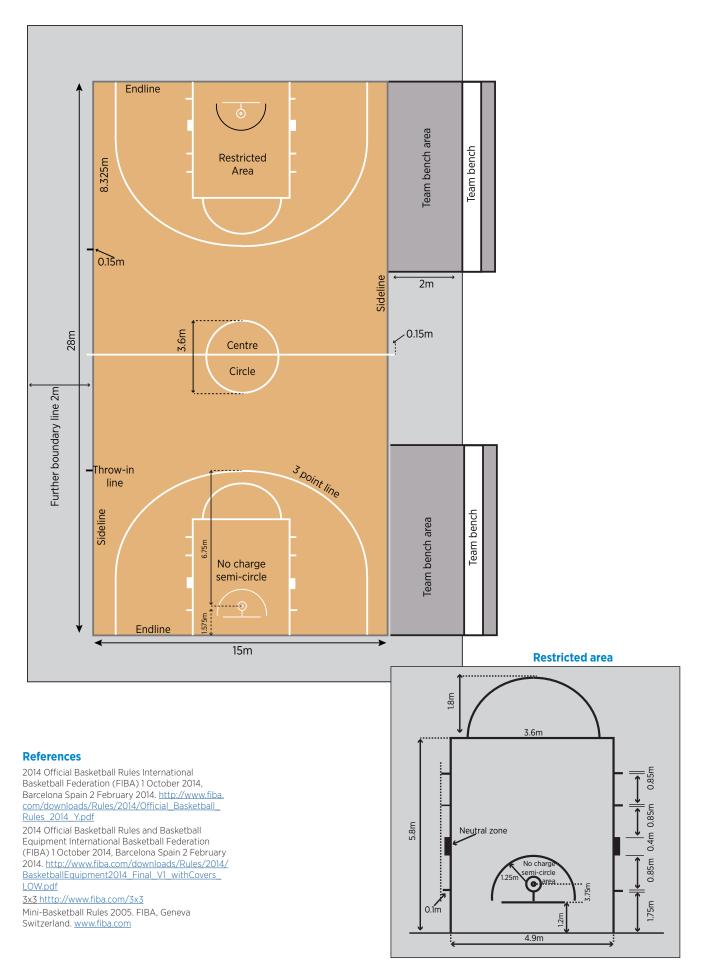
The no charge semi-circle areas are completed by imaginary lines joining the ends of the parallel lines directly below the front edges of the backboards.

The no charge semi-circle lines are part of the no charge semi-circle areas.

Spectators

All spectators must be seated at a distance of at least 5m from the outer edge of he boundary line of the playing court.

Full size playing court



3x3 basketball

A new form of the game called 3x3, also known as street basketball, is played three a side on one hoop. It is the largest urban team sport of the world. This basketball discipline is currently being promoted and structured by FIBA the sport's world governing body.

The main rules of 3x3 are as follows:

- One basket on one half-court.
- 2 teams of 3 players and up to one substitute per team.
- 12 seconds shot clock.
- 1st team to reach 21 points or best after 10 minutes wins.

Playing court

A regular 3x3 court playing surface is 15m wide x 11m long.

The court has a regular basketball playing court sized zone, including a free throw line (5.80m), a two point line (6.75m) and a "no-charge semi-circle" area underneath the one basket.

Half a traditional basketball court may be used.

Mini-basketball

Mini-basketball is a game for boys and girls who are eleven years or under in the year the competition begins.

Mini-basketball is played by 2 teams of 5 players each. The aim of each team is to score in the opponents' basket and to prevent the other team from scoring.

Court dimensions

The playing court has a flat, hard surface free from obstructions.

The dimensions of the courts may vary to account for local facilities. The standard size is 28m long and 15m wide.

It can be scaled down in size, providing the variations are in the same proportions from 26m x 14m to 12m x 7m.

Note: It is important that the free throw line is 4m to the backboard.

Bocce bowls

Bocce court dimensions

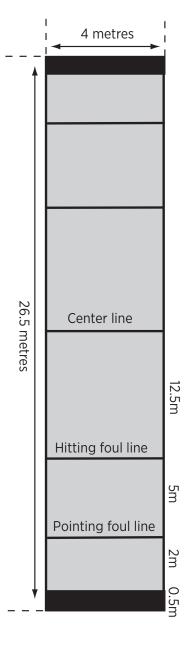
Overall dimensions

Bocce is played on a variety of surfaces such as carpet, crushed stone, dirt, oyster shells, clay, and most recently synthetic carpets and poured liquid creating a smooth, extremely fast surface.

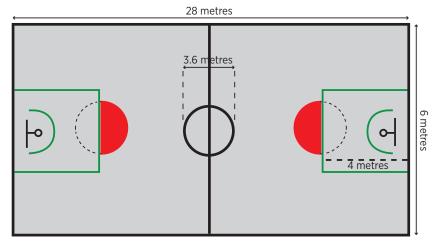
Areas of the court

A regulation court is a maximum 4m wide and a maximum 26.5m long.

Regulation bocce courts have a raised barrier around the edge of the rectangle. This measures to a maximum of 20cm high.



Mini-basketball court



Bowling—ten pin

Ten-pin bowling is a sport that uses the imperial system of measurement.

Lane dimensions

The length of a regulation lane is 60 feet from the foul line to the centre of the headpin.

The lane is 42 inches wide but is measured in boards. There are 39 boards.

Markings

Board 20 is the center board, counting from either side. It is marked by the Center Arrow. Arrows are 5 boards apart for easy board counting.

Lane surface

The surface is free of all continuous grooves. It is perfectly flat both side to side and front to back with a maximum tolerance of just 40/1000th inch allowed.

Lane approach

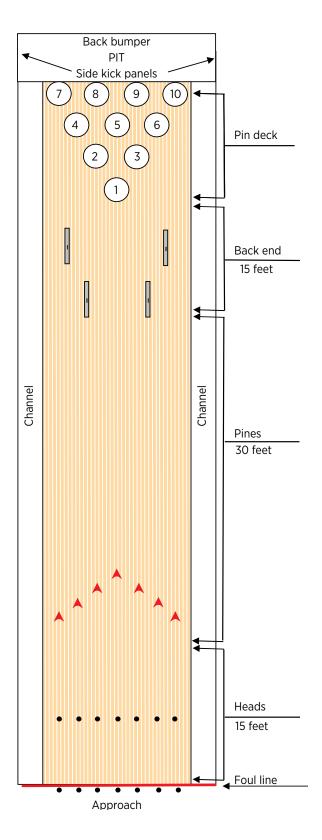
The approach where the bowler delivers the ball is not less than 15 feet in length. The same lane finishing coating is applied from edge board to edge board.

The pin deck

Each pin is 12 inches from its neighbour in any direction (as measured from the centre of each pin).

References

Tenpin Bowling Australia Ltd<u>.www.tenpin.org.au/</u> Fusion Bowling. <u>www.fusionbowling.com/</u> resources/bowling-alley-lane-dimensions/



Bowls—lawn bowls

The green

A bowling green is normally square and not less than 31m and no more than 40m in the direction of play.

The playing surface is either grass or a synthetic surface approved by a Member National Authority.

The ditch

The ditch is between 200mm and 380mm wide and between 50mm and 200mm deep. The ditch has a holding surface which is free from obstacles and made from a material that will not damage the jack or the bowls.

The bank

The ditch has a bank against its outer edge. The top of the bank is at least 230mm above the surface level of the green.

The bank is vertical and set at a right angle to the surface of the green, or sloped at an angle of not more than 35° from the vertical.

The surface of the face of the bank is made of or covered with, a material which will not damage the jack or the bowls.

Rinks

The green is divided into sections called rinks. The green is normally divided into six rinks allowing six games to take place concurrently. The rinks should be not less than 4.3m nor more than 5.8m wide.

Ideally a good green width should be around the 5m so greens do not have to be adjusted for major competitions.

The rinks are numbered in order, with the centre of each rink being marked on the bank at each end by a peg, disc or other suitable device that has the rink number on it and is fixed vertically.

Boundary pegs

The four corners of the rinks are marked by white or brightly coloured pegs made of material which will not damage the jack or bowls.

Boundary pegs are not more than 25mm wide and the centre of the peg clearly marked by a thin black vertical line if they are fixed to the face of the bank of an indoor green.

The boundary pegs of an outside rink are at least 600mm from the side ditch for outdoor play and at least 460mm from the side ditch for indoor play.

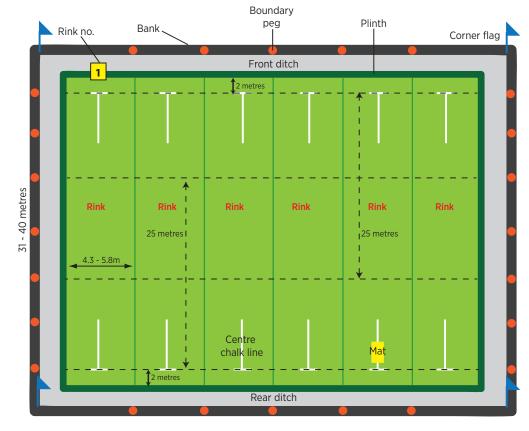
Distance markers

White or brightly coloured pegs or discs can be fixed vertically against the face or on top of the side banks in the direction of play to mark distances of 2m and 23m from the end ditches. Wherever possible these should be the only pegs or discs visible on the side banks.

Centre line

The centre line of each rink is marked along the surface of the green starting 2m from each end ditch and finishing at any point up to, but not less than 23m from the opposite end ditch. The centre line is now optional, but preference is that it should be marked to assist players place the mat.

The centre line is marked at a distance of 2m from each end ditch. The mark can be drawn in the form of a 'T' or a small piece of a suitable material inserted immediately below the surface of the green.



References

Laws of the Sport of Lawn Bowls, Bowls Australia, Crystal Mark 3rd Edition, January 2015 Bowling Green Construction guidelines. Bowls Australia 2011. www. bowlsaustralia.com.au/Club-Assist/ Synthetic-and-natural-turf-guidelinesand-preferred-synthetic-surfacessuppliers

Boxing

Boxing is a sport in which two participants of similar weight fight each other with fists in gloves in a series of one to three minute intervals called rounds. The bout takes place in a roped area called a ring.

Boxing Australia is governed by the International Boxing Association (AIBA) Technical and Competition rules.

Ring and canvas size

For all AIBA Competitions, the ring is 6.10m square inside the line of the ropes.

The size of the apron extends 85cm outside the line of the ropes on each side, including additional canvas necessary to tighten and secure it.

The height of the ring is 100cm from the ground.

85cm

6.10m square

Platform and corner pads

The platform is 7.80m squared, level and free from any obstructing projection. It is fitted with four corner posts with 4 corner pads to prevent injury to the boxers.

Corner pads are arranged as follows:

- In the near left side corner red.
- In the far left side corner white.
- In the far right side corner blue.
- In the near right side corner white.

Surface of the ring floor

The floor is covered with felt, rubber or other suitably approved material that is soft in quality and elasticity. It is not be less than 1.5cm and no more than 2.0cm thick.

The canvas is made of non-slip material and covers the entire platform. The canvas is coloured pantone blue 299.

85cm

Ropes

The ring includes four separate ropes, 4cm thick, on each side of the corner posts.

The heights of the 4 ropes are 40cm, 70cm, 100cm and 130cm from the canvas. The ropes are covered by a thick padding.

The ropes are joined on each side of the ring, at equal intervals, by two pieces of material 3-4cm wide. These two pieces are similar in texture to the canvas and must not slide along the rope.

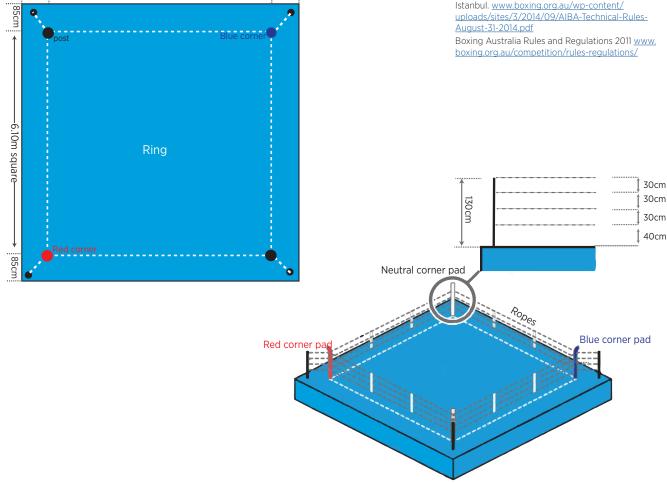
The tension of each section of the top two ropes is tight and the bottom two sections is not too tight.

Steps

There are three sets of steps to the ring, two sets at opposite corners for the use of boxers and support staff and one set of steps in another corner for the use of the referee and ringside physician.

References

AIBA Technical Rules amended 31 August 2014 Istanbul. www.boxing.org.au/wp-content/



Cricket

Outdoor cricket

Outdoor cricket is played on an oval grass field. In the centre there is a flat strip of ground called the pitch.

Area of pitch

Turf cricket pitch

The dimensions of a turf pitch are 20.12m long (from stump to stump) plus a minimum of 1.22m behind the stumps to accommodate the return crease and bowler approach area. The width of a turf pitch is 3.05m.

The overall dimensions of a turf wicket will vary according to the level of cricket competition being played.

Synthetic pitches

The dimensions of a synthetic cricket pitch range from 25m to 28m long and 2.4m to 2.8m wide.

A bowling crease, popping crease and two return creases are marked in white at each end of the pitch.

The bowling crease

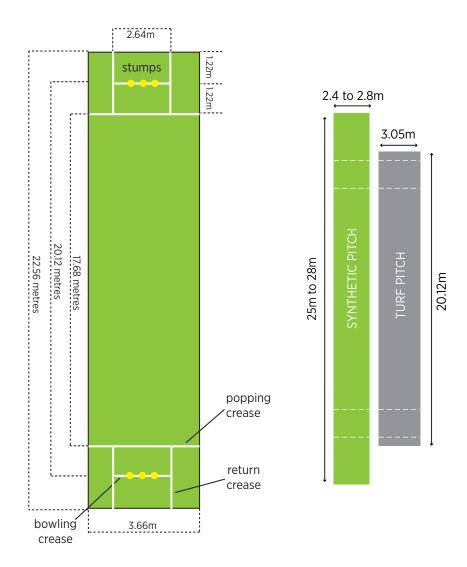
The bowling crease is the back edge of the crease marking. There is a line, 2.64m long, through the centres of the three stumps.

The popping crease

The popping crease is in front of and parallel to the bowling crease. It is 1.22m from the bowling crease and is marked to a minimum of 1.83m on either side of the two middle stumps and is unlimited in length.

The return creases

The return crease is at right angles to the popping crease at a distance of 1.32m either side from the middle of the stumps. The return crease is 2.44m long and is behind the popping crease.



This table is a summary of the pitch dimensions for the various game formats in all competitions.

Level of competition	Preferred pitch type and dimensions					
	Min	Recommended				
In2CRICKET (ages 5-8)	Flexible	To suit ability 13m x 16m x 2.4-2.8m				
T20 Blast (ages 8-12)	Flexible	18m x 2.4-2.8m				
Under 10	Synthetic	25-28m x 2.4-2.8m				
Under 12	Synthetic	25-28m x 2.4-2.8m				
Under 14	Synthetic	25-28m x 2.4-2.8m				
Under 16	Synthetic	25-28m x 2.4-2.8m				
Open age (community club)—synthetic only	Synthetic	25-28m x 2.4-2.8m				
Open age (community club)—turf only	Turf	22.56m x 3.05m				
Open age (premier/regional)—turf only	Turf	22.56m x 3.05m				
Domestic cricket and underage national events	Turf	22.56m x 3.05m				

Cricket playing ground

A circular cricket field is considered as the perfect field but generally a cricket pitch is slightly oval. Its diameter varies between 137m and 150m. The ICC Test Match Standard Playing Conditions (October 2014) Law 19.1 defines the playing area as a minimum of 137.16m from boundary to boundary square of the pitch, with the shorter of the two square boundaries a minimum of 59.43m. The straight boundary at both ends of the pitch is a minimum of 64m. Distances are measured from the centre of the pitch.

Boundaries are not to exceed 82.29m from the centre of the pitch.

Boundary markings

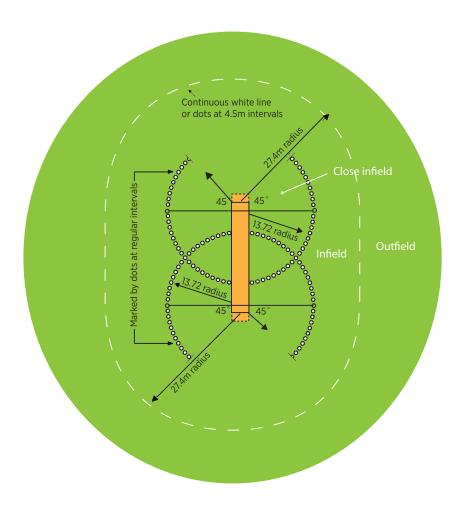
All boundaries are marked by a rope or similar object as per the ICC rules. The rope has a required minimum distance of 2.74m inside the perimeter fencing or advertising signs. For grounds with a large playing area, the maximum length of boundary should be used before applying the minimum 3 yards (2.74m) between the boundary and the fence.

When marking a cricket playing field, buffer distances between cricket ground boundaries in relation to other park infrastructure including car parks, roadways, neighbouring properties and playgrounds need to be considered. Buffer distances of between 20m to 40m from boundaries are preferable to reduce risk of damage to park users and property.

Infield, outfield and closeinfield

The infield, outfield and the closeinfield are used to enforce field restrictions and/or safety zones for some game formats and age groups.

Two semi-circles with a radius of 27.43m are drawn in the field of play. The centre of these circles is the middle stump at either end of the pitch. The circles are marked by continuous painted white lines or dots at 4.57m intervals, each dot to covered by a white plastic or rubber disc measuring 18cm in diameter.



Two inner circles with a radius of 13.72m are also drawn on the field of play. The centre of the circles is the centre point of the popping crease at either end of the pitch. These areas are also marked with dots.

Modified cricket for juniors

There are formats for various age groups catering for skill levels, age group, level of commitment and other social, cultural and geographic considerations.

Below is a summary of field dimensions for the various game formats in all competitions.

Level of competition	Preferred playing field dimensions*			
	Min	Recommended		
In2CRICKET (5-8 years)	25m	30m		
Under 10	30m	40m		
Under 12	40m	45m		
Under 14	45m	50m		
Under 16	45m	55m		
Open age (community club)	50m	60m		
Open age (premier/regional)	65m	75m		
Domestic cricket and underage national events	82m	82m		
Domestic women's and underage national girls events	58m	58m		

^{*}Measured from the centre of the pitch to the boundary

Practice crickets nets

Generally practice cricket nets are 20m long and 3.6m wide. The back and side walls are 3m high.

With multi-bay constructions the dividing (centre) net must be 21m long. This is a occupational health and safety measure to protect the bowlers in adjacent nets.

Peripheral nets require a minimum side fencing length of 11m. It is recommended that all nets have a minimum 21m dividing fence and are 27m long to allow for extended bowler run-ups and bowler protection.

Australian Standards

No Australian Standard specific to cricket net design in Australia currently exists. The following standards relate to cricket net materials:

- AS1725.4 2010: Chain link fabric fencing—Cricket net fencing enclosures.
- AS1725.1 2010: Chain link fabric fencing—Security fencing and gates—General requirements.

Indoor cricket

The indoor cricket court is a minimum of 28m to a maximum of 30m long and a minimum of 10.5m to a maximum of 12m wide. The height of the facility is 4m to 4.5m.

All lines are 55mm wide.

The pitch is the area between both sets of stumps, the bowling return creases and the offside lines at the striker's end.

A wicket line is marked in line with the stumps at each end, and is 1.83m wide at the batting end and 2.47m at the bowling end, with the stumps in the centre and the middle stumps 20m apart.

The popping crease is in front of, and parallel with, the wicket lines at both ends. It has its back edge 1.22m centre of the stumps. At the striker's end, it extends from one side of the court to the other and is called the batting crease. At the bowler's end, it is the line extending between the return creases and is called the bowler's crease or the front foot line.

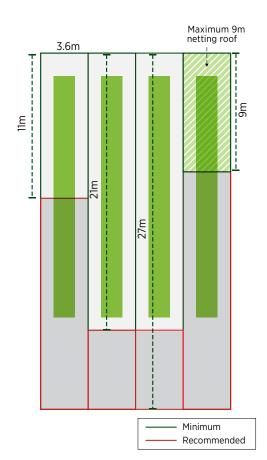
The return creases at the bowler's end are at right angles to the bowling crease to the line of the wickets. The return creases are marked 1.22m from the middle stump on the line of the wicket.

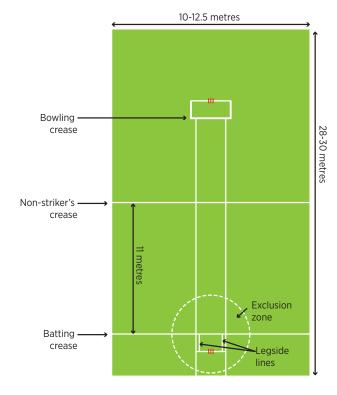
The running crease (or non-striking batter's crease), which is the edge of the crease marking nearest the bowling end, is parallel to the popping crease and extends from one side of the court to the other. The distance between the running crease and the batting crease is 11m.

The legside lines are positioned with the inside edge 45cms from the middle stump. The legside lines extend to a minimum of 15cms at right angles to the batting crease. The offside or wide lines are positioned with the inside edge 90cms from the centre stump.

A fielding Exclusion Zone is marked in an arc extending from the centre of the batting crease at a radius of 3m.

The underarm line is marked across the pitch 7m from the striker's stumps.





References

Laws of Cricket, Marlebone Cricket Club October 2013, 2000 Code 5th Edition - 2013, ICC Standard Test Match Playing Conditions, October 2014. ICC Standard One-Day International Match Playing Conditions October 2014. Community Cricket Facility Guidelines. Cricket Australia. September 2015. Official rules of Indoor Cricket. World Indoor Cricket Federation and Cricket Australia. Feb 2011. Revised 2016.

Croquet

Court layout

The standard court measures 25.6m by 32m. The boundary must be clearly marked, the inner edge of the marking being the actual boundary.

Boundaries

The boundaries are known as the north, south, east and west boundaries regardless of the actual orientation of the court.

The corners are depicted by Roman numerals I, II, III and IV.

Yard line

The perimeter of an inner rectangle whose sides are parallel to and one yard from the boundary is called the yard line. The yard line corners the corner spots. The space between the yard line and the boundary is the yard line area. The yard line is not marked on the court. Certain balls which leave the court or come to rest in the yard line area are placed on the yard line.

Baulk lines

The parts of the yard line that extend from the corner spots at corners I and III to a line extended through the centres of hoops 5 and 6 are known as the A and B baulk lines respectively.

The ends of the baulk lines may be marked on the boundary but any raised markers used must not intrude or lean into the court. The baulk lines are where a ball may be placed before it is played into the game.

References

association/

The Laws of Association Croquet, Sixth Edition (Amended 2008). The Croquet Association on behalf of itself, the Australian Croquet Association, Croquet. https://croquet-australia.com.au/
New Zealand and the United States Croquet Association. https://www.croquet.org.uk/

The standard setting

The peg is set in the centre of the court.

There are six hoops set parallel to the north and south boundaries. The centres of the two inner hoops are 6.4m to the north and south of the peg. The centres of the four outer hoops are 6.4m from the adjacent boundaries.

Pegs

The peg is a rigid cylinder with a height and uniform diameter above the ground of 450mm and 38mm respectively. It is vertical, firmly fixed and painted white to a height of at least 150mm.

Corner pegs

Eight white corner pegs, measuring about 19mm in diameter and about 75mm in height above the ground, are optional accessories and placed on the boundary 0.09m from each corner, measured to the further side of the corner pegs. The corner pegs touch the boundary but must not intrude or lean into the court.

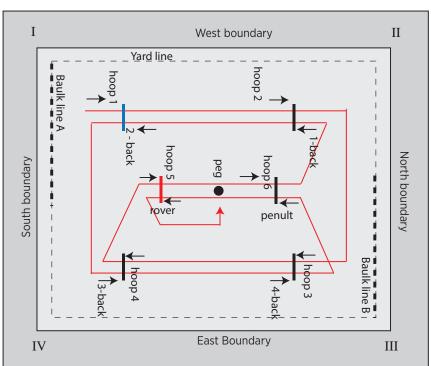
Corner flags

Flags coloured blue, red, black and yellow are optional accessories and may be placed in corners I, II, III and IV respectively. They are mounted on posts about 300mm high that touch the corner but must not intrude or lean into the court.

Hoops

Each hoop is made of solid metal and consists of two uprights connected by a crown. A hoop is 300mm high above the ground, measured to the top of the crown and is vertical and firmly fixed. Each hoop on a court has the same dimensions within a tolerance of 92mm.

Standard court



Cycling

Cycling encompasses the following disciplines: road, track, mountain bike, cyclocross, BMX, indoor, trials and para-cycling track events.

Track events

There are ten track racing events divided into three sections.

Sprint events

Individual sprint, team sprint, kilometre (500m for women) and keirin.

Endurance events

Individual pursuit, team pursuit, points race, madison and scratch race.

Combined event

Omnium is made up of six events over two consecutive days.

Velodrome

Track racing takes place in an arena called a velodrome. The inner edge of the track consists of two curves connected by two parallel straight lines. The entrance and exit of the bends are designed so that the transition is gradual.

The banking of the track is determined by the radius of the curves and the maximum speeds achieved in the various disciplines.

Velodromes can be enclosed or open air and are surfaced in wood or smooth concrete.

Length

The length of the track is between 133m and 500m inclusive. For World Championships and Olympic Games, velodromes are 250m. The length of the track is measured 20cm above the inner edge of the track (the upper edge of the blue band).

The length of the track multiplied by a round number of laps or half laps equals 1,000m.

The smaller the track, the steeper the banking. A 250m track would bank around 45°, while a 333m track would bank around 32°.

Width

The width of the track is constant throughout its length. Tracks approved in categories 1 and 2 have a minimum width of 7m. Other tracks have a width proportional to its length of 5m minimum.

Surface

The surface of the track is completely flat, homogenous and non-abrasive. The tolerance of flatness for the track surface is 5mm over 2m. The coating is uniform in all its aspects over the entire track surface. The surface colour of the track must leave the track marking lines clearly visible.

Markings

All tracks have a standard set of markings. Any demarcation, line, advertisement or other marking on the track is applied with a paint or product which is non-slip and does not alter the adhesion properties, consistency or homogeneity of the surface.

The longitudinal lines on the track above the blue band are 5cm wide and the perpendicular lines are 4cm wide.

Blue band

A rideable area, sky blue in colour, known as the blue band is provided along the inside edge of the track. The width of this band is at least 10% of the width of the track and its surface has the same properties as the track. No advertising inscription is permissible in this area.

With the exception of mounted riders, no person or object is allowed on the blue band while one or more riders are on the track.

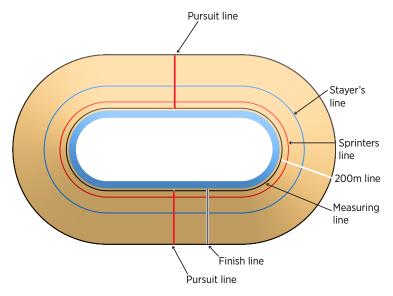
Safety zone

Immediately inside the blue band there is a prepared and marked safety zone. The combined width of the blue band and the safety zone is at least 4m for tracks of 250m and over, and 2.5m for tracks shorter than 250m.

With the exception of the commissaires, mounted riders or other persons authorised by the Chief Commissaire, no person or object (including starting blocks) are allowed inside the safety zone when a rider is on the track.

A fence at least 120cm high, is erected on the inner edge of the safety zone in the track centre. The fence is transparent and advertising boards are not allowed.

In places where the level of the track proper is more than 1.5m higher than the actual track centre, additional protective measures such as nets, panels, or the like, can be erected in order to prevent athletes being subjected to injury.



Longitudinal markings

Measurement line

The measurement line is black or white, to contrast with the track, and placed with its inner edge 20cm from the inner edge of the track. It is marked off at every 5m and numbered at every 10m going counterclockwise from the finish line. The official length of the track is to be measured on the inner edge of this line.

Sprinters' line

The sprinters line is red and placed with its outer edge 90cm from the inner edge of the track. The distance is measured to the inner edge of the red line.

Stayers' line

A blue line drawn at one third of the total width of the track or 2.45m (whichever is greater) from the inner edge of the track, the distance being measured from the inner edge of the line.

Perpendicular markings

Finish line

The finish line is situated towards the end of one of the straights but at least a few metres before the entrance of the banking, and in principle in front of the main grandstand. It is marked by a perpendicular black line 4cm wide at the centre of a white band 72cm in wide. The finish line marking on the track continues up to the top of the flat surface of the fencing.

200 metre line

A white line is drawn across the track 200m before the finish line, from which point the times are recorded for sprint events.

Pursuit lines

Two red lines half the width of the track in length, perpendicular to the track and precisely in line with one another, are drawn at the precise midpoint of each of the straights to mark the finish points for pursuit events.

Road events

A road course may be from place to place, around a circuit, out and back or a combination of these. The course must not cross itself. There must be no chance that riders have to cut through other groups of riders.

Markers

In all road events a conspicuous marker denotes the final kilometre. Panels at the 500m, 300m, 150m 100m and 50m are recommended.

Panels indicating the last 25, 20, 10, 5, 4, 3 and 2 km are recommended for all road races. In races ending on a circuit, only the last 3, 2 and 1 km are displayed.

The finish

The finishing area is at least 8m wide and protected to prevent spectators from entering onto the course. The last 200m is free of turns and curves.

The finish line is perpendicular to the racecourse. For any championship event it is a black line between 4cm and 6cm wide painted in the middle of a 72cm wide white stripe.

Individual road race

Individual road races are massed start races, in which all riders start from the same mark, or handicap races, in which starting positions are assigned in accordance with past performance to give all riders an equal chance at winning.

If a circuit course is used for an individual road race, the distance is at least 5km per lap.

Criterium

A criterium is a closed loop course entirely closed to traffic. The length of the course is between 800m and 5km.

The minimum width throughout the course is 7m.

Riders may only ride in a forward direction on the course but may dismount and run backward to a repair pit when it is safe to do so.

Individual time trial

Courses may be out and back, around a circuit, or one way. Only out and back and circuit courses may be used for record purposes.

Starting times are at equal intervals, normally one minute.

Team Time Trial

Teams are made up of two or more riders. The distance, timing basis and number of riders who are required to finish is specified in the official race announcement.

Times are based on any specified finishing position or on the sum of the times of any specified finishers.

Courses may be out and back, around a circuit, or one way. Only out and back or circuit courses may be used for record purposes.

The recommended minimum roadway width is 12m for an out and back course; otherwise a minimum of 8m is permitted. A warm-up area at least 2km long adjacent to the starting area is recommended.

The turnaround point for an out and back course is where the roadway is wide enough to permit the riders and any following vehicles to turn smoothly.

Stage racing

A stage race is an event with a common entry, run on consecutive days and comprises a sequence of road races (ie individual road races, time trials, criteriums). The overall results are determined by cumulative time or points.

Riders must successfully complete each stage in order to be eligible for the next one. In stage races by time, the sum of the rider's times for each stage determines the final results.

In stage races by points, the sum of the rider's points for each stage determines the final results.

BMX

The track is a compact, closed looped design, forming a circuit 300m to 400m long.

The track is a minimum of 10m wide at the start and cannot taper to a width less than 5m at any point along the track.

Starting hill

The starting hill is at least 10m wide and 1.5m high, preferably 2.5m above the grade of the first straight. The initial incline extending from the starting gate to level grade is at least 12m long.

Starting gate

The starting gate is 7.3m wide. It is at least 50cm high with an angle no greater than 90 degrees with the slope of the ramp which supports the bikes wheels when in the starting position.

Initial straight

The initial straight is 40m long. It is recommended that the bottom front side of the first obstacle is located not less than 35m from the starting gate nor less than 20m from the curvature of the first turn.

First turn

The first turn can go in either direction and banked to a degree which allows safe entry and exit for riders of all ages at race speeds.

The track is a minimum of 6m wide measured along a straight line extending from the inner radium to the top of the berm at its outer radius.

Turns and obstacles

The track has a minimum of 3 turns and a minimum of 5m wide throughout each turn.

All obstacles on the track are constructed with the safety of all riders, regardless of age, in mind. On the first straight the minimum distance between two obstacles is 10m. An obstacle is defined by its front and back slope and can be a single obstacle, double, triple or multi-jump as well as a 4-pack, 5-pack or multi-pack.

Race track markings

The boundaries of the race track are clearly marked with white lines.

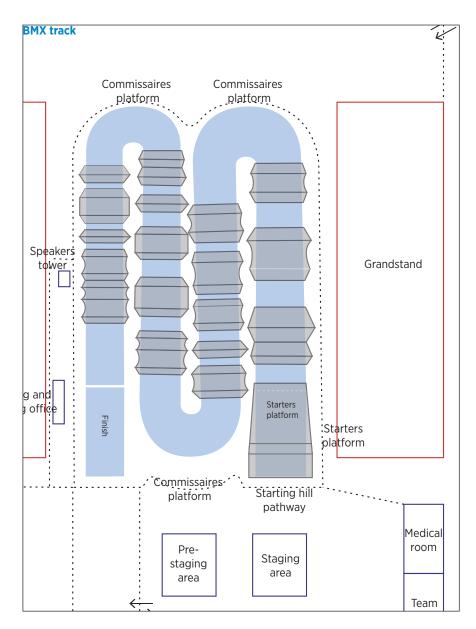
Fencing

The track is enclosed by a perimeter fence located at any point no closer than 2m from the competition track.

The fence is constructed of a substantial material such as plastic webbing which is capable of absorbing the full impact of a rider of any size striking it at race speed.

Finish line

The finish line is a straight line 4cm wide, painted black in the middle of a white strip 24cm wide. Any banners extending across the track above the finish line or elsewhere along the track are at an elevation sufficiently above track level to avoid interference with the riders crossing beneath them.



Mountain biking

Cross country events

The course for a cross-country race includes a variety of terrain such as road sections, forest tracks, fields and earth or gravel paths, and include significant amounts of climbing and descending. Paved or tarred/asphalt roads cannot exceed 15% of the total course. The following events are included in the cross country disciplines:

Olympic: XCO

The course for an Olympic format cross-country event uses a layout ideally in a cloverleaf design, to encourage easy viewing for spectators and any television coverage.

The course is marked every kilometre by a sign indicating the distance remaining to the finish line.

Riders must start in a single group.

Marathon: XCM

The format for cross-country marathon race is a minimum distance of 60km and maximum 160km.

The course is marked every 10km with a sign indicating the distance remaining to be raced.

The race can be run over a single lap or multi-lap with a maximum number of laps of three.

In the event of a single lap the course does include any section to be covered twice. Only the start and finish lines are located at the same place.

Riders start in a single group.

Point to point: XCP

The course for a cross-country point to point event starts in one place and finishes elsewhere.

Riders start in a single group.

Short circuit: XCC

The start and finish are in the same area. The distance of the course is no more than 2km with a race duration of 30 to 60 minutes.

Eliminator: XCE

The course for a cross-country eliminator race is between 500m and 1000m and includes natural and/or artificial obstacles. The whole course is 100% rideable, single track sections are avoided and where possible the course has not more than one 180° turn. The start and finish area are separated in order to allow a short race program.

Obstacles such as trees, stairs (up/down), drops, bridges or wooden constructions can create a dynamic short race.

Time trial: XCT

Time trial events are only used during stage races.

Team relay: XCR

These events are only available at world championships and continental championships.

Stage races

A stage race is a series of crosscountry races in which teams, national federation riders and individual riders may take part. Riders must complete each stage according to the specific procedures for the event in order to be eligible for the next stage.

Stage races are run over at least three days, with a maximum of nine days. Only one stage per day may be run.

The different types of cross-country events mentioned above except cross-country eliminator (XCE) can be chosen for the stages.

Course markings

The complete course is marked and indicated according to the following system:

Direction arrows (black arrows on white or yellow panels) indicate the route to be followed showing changes of course, intersections, and all potentially dangerous situations. The minimum dimensions of direction arrows are 40cm by 20cm and not sited more than 1.5m above ground level.

The arrows are on the right hand side of the course except for right turns in which case arrows before and at the turn are on the left hand side of the course.

An arrow is located 10m before each junction, at the junction and 10m after the junction to confirm that the correct route has been followed.

A clearly visible X sign is used to mark wrong directions.

The sections of a cross-country course that involve steep or potentially dangerous slopes are marked and protected using non-metallic, preferably PVC, stakes (slalom stakes), 1.5 to 2m high.

Where course sections involve obstacles such as walls, tree stumps or tree trunks, hay bales or suitable padding are used to protect the riders. Such protective measures must not restrict the rideability of the course.

In appropriate areas, such as along the edge of steep drops, catch nets which comply with safety standards are used.

Any wooden bridges or ramps are covered with a non-slip surface (carpet, chicken wire or special antislip paint).

Wherever possible, roots, tree stumps, protruding rocks, etc are covered in biodegradable fluorescent paint.

Start and finish zones

The start and finish banners are placed immediately above the start and finish lines at least 2.5m above ground level and covers the whole width of the riding surface.

The start zone for a cross-country event (massed start events) for world championships and world club events is at least:

- 8m wide for at least 50m before the start line.
- 8m wide for at least 100m after the start line.

For all other events:

- 6m wide for at least 5m before the start line.
- 6m wide for at least 100m after the start line:

For all events the start is on a flat or uphill section of the course.

The finish zone for a cross-country event (massed start event) is at least:

- 4m wide for at least 50m before the finish line; for world championships and world cup events this zone is at least 8m wide for at least 80m.
- 4m wide for at least 20m after the finish line; for world championships and world cup events this zone is at least 8m wide for at least 50m.
- On a flat or uphill section of the course.

Barriers must be in place on both sides of the course for a minimum of 100m before and 50m after the start and finish line.

The final kilometre of the race must be clearly indicated.

Downhill events

Downhill has two disciplines, individual and marathon.

The course for a downhill follows a descending route. The course comprises varied terrain sections; narrow and broad tracks, woodland roads and paths, field paths and rocky tracks.

The course is 1500m minimum and 3500m maximum. The entire downhill course is marked and protected using non-metallic, preferably PVC, stakes (slalom stakes) 1.5 to 2m high. The use of straw bales to mark off the course is not permitted.

The start area is at least one metre and no more than 2m wide. A suitable handrail is installed, the floor is covered with a nonslip surface and the start area is covered.

The finish area is at least 6m wide. There is a braking area of minimum 35-50m after the finish line with adequate protection and cordoned off from the public. The riders' exit is designed so that the speed is kept to a minimum. This area must be free of obstacles.

Four cross events

Four cross is an elimination event where three or four riders (called a heat) compete side by side on the same downhill course.

The course is set up on moderate slopes with regular gradients. It also includes a mixture of jumps, humps, banked turns, berms, dips, natural tables and other special features. It may also include unbanked turns.

The course is wide enough to allow four riders to line up side by side, and to allow overtaking.

The start straight is at least 30m long. Obstacles in the first 30m are the same across the entire width of the course.

The gates on the course are made of non-metallic stakes (slalom stakes), preferably in PVC, 1.5 to 2m high. The gates are set up with the lower part inwards and the higher part outwards. The last gate on the course is located at least 10m from the finish line.

Enduro

The race includes several liaison stages and timed stages. The times achieved in all timed stages are accumulated to a total time.

An enduro course comprises varied off-road terrain. The track includes a mixture of narrow and wide, slow and fast paths and tracks over a mixture of off-road surfaces. Each timed stage is predominately descending but small pedaling or uphill sections are acceptable.

Liaison stages can include either mechanical uplift (eg chairlift), pedal powered climbs or a mixture of both. Enduro courses are clearly marked using a combination of arrows, gates and traditional course tape. In the sections of the course that are marked by course tape, both sides of the track are marked.

Course markings

The following course markings are used by UCI and other national governing bodies.

Arrows mark the entire length of the official course. The arrows' area is contrasting colour on a white background, on signs measuring a minimum of (30cm by 60cm).

The signs indicate the course to follow, curves, intersections and warn of situations which are challenging for the competitors.

Signs are posted along the course at regular intervals to indicate to competitors that they are on course.

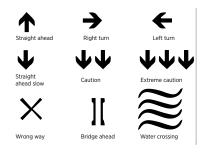
An arrow is placed 30m before the intersection marks at each intersection, also marked with an arrow. The direction of travel is then confirmed by another arrow located 30m further in the new direction.

In all hazardous situations, two or three arrows placed upside down are located 30m before any obstacle on a circuit. A hazard on the circuit may be an obstacle, quality of the surface, angle of the track or any other condition not specifically addressed.

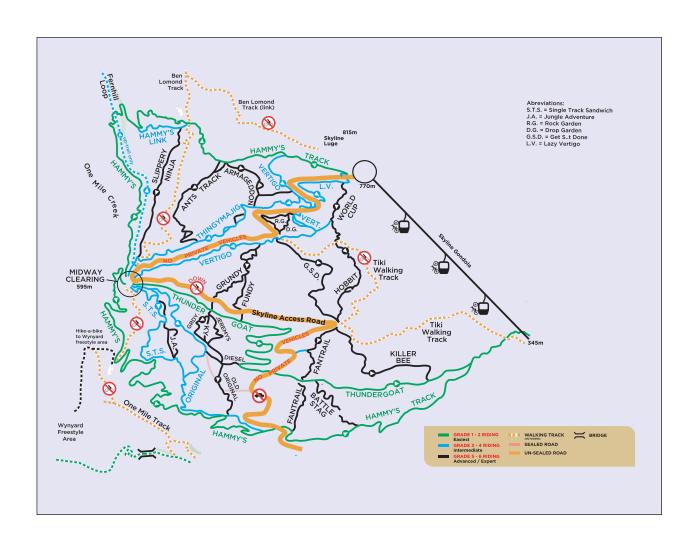
Directional arrows are placed on the right and at racing eye level, about three feet from the ground.

The course also is marked every half mile or one km with signs indicating kms yet to be raced. There may be a sign indicating one km to go.

The signs to be used on a mountain bike circuit are shown below:



Below is an example of a mountain bike track in Queenstown in New Zealand:



References

UCI Cycling Regulations June 2015. Switzerland. http://www.uci.ch/mm/Document/News/ Rulesandregulation/16/82/39/2-ROA-20150619-E English.pdf

UCI Cycling Regulations February 2015. Switzerland. http://www.uci.ch/mm/Document/ News/Rulesandregulation/16/26/54/3-PIS-20150201-E_English.pdf

UCI Cycling Regulations April 2014.
Switzerland, http://www.uci.ch/mm/l

Switzerland. http://www.uci.ch/mm/Document/ News/Rulesandregulation/16/72/76/ MTBReglementsENG_English.pdf

UCI Cycling Regulations April 2014. Switzerland. http://www.uci.ch/mm/Document/News/ Rulesandregulation/16/61/41/6BMX-E-040414-DEF_English.pdf

USA Cycling. USA BMX Rule book 2015. https://www.usabmx.com/site/sections/78

Skyline Queenstown. http://www.skyline.co.nz/gueenstown/trail_map/

Darts

Only referees, scorers, markers and dart board indicator operators (where used) are allowed to stand or sit in front of the player actually throwing darts. Such officials are expected to restrict their movement to a minimum during the course of 'the throw'.

The dart board

All dart boards to be manufactured from sisal. The standard dimensions of the dart board are as follows:

- Double and treble ring inside measurement: 8mm.
- Bull inside diameter: 12.7mm.
- Outer bull inside diameter: 31.8mm.
- Centre bull to inside edge of treble wire: 107mm.
- Centre bull to outside edge double wire: 170mm.
- Outside edge of double wire to outside edge of double wire: 340mm.
- Overall dart board diameter: 451mm.

The dart board is fixed on a wall, or mobile stand allowing for a minimum of a 3m separation between boards measured Bull to Bull.

The dart board is fixed so that the perpendicular height from the centre of the bull to the floor, at the same level as the oche shall measure 1.73m.

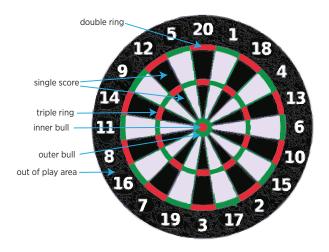
The dart board is fixed so that the 20 segment is coloured black and is at the top of the board.

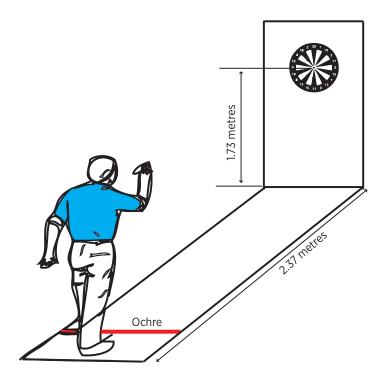
The oche

The oche is the line behind which the throwing player stands. It is at least 25mm high and one metre long and placed in a position where the minimum throwing distance measures from the back of the raised ochre 2.37m along the floor to a plumb line at the face of the darts board.

The diagonal distance from the bull centre to the back of the raised ochre at the floor level is 2.93m.

The encroachment line is a tape line located 1.5m behind the oche. This is where a player stands as his/her opponent is playing a shot.





References

Darts Australia Inc Playing Rules February 2013. http://www.dartsaustralia.com.au/da_news/pdf/DA%20Senior%20Playing%20Rules%202013%20.pdf

Diving

Diving installations are located either indoor or outdoor in aquatic facilities and are generally separated from the swimming area.

The minimum size for a diving pool is 25m wide and 20m long. The overall dimensions can be increased to suit other activities such as synchronised swimming and water polo.

A competition pool is equipped with two 1m and two 3m springboards and a diving tower with take-off platforms at 5m, 7.5m and 10m. Platforms also exist at 1m and 3m heights as training tools. The basic measuring point used is the plummet line. This is a vertical line extending through the centre point of the front edge of the diving springboard.

The water temperature is a minimum of 26° celsius. The colour of the walls are white or pale blue. A dark blue floor, in conjunction with agitation of the water surface by water sprays, assists divers in seeing the water surface and reduces the risk of an accident.

Surface agitators are a FINA requirement to help divers in their visual perception of the water surface. Normally the agitation is made via a sprinkler directed on to the surface of the water.

A bubbler is installed on the pool floor to provide a compressed air cushion of bubbles to protect divers from injury.

In the diving pool the water depth is a minimum of 1.8m at any point.

In outdoor pools, it is recommended that springboards and platforms are to face north in the northern hemisphere and south in the southern hemisphere.

Diving boards, diving platforms and diving pools are designed and constructed in accordance with the requirements of the FINA Facilities Rules 2015-2017 Part IX, available on their website. www. fina.org/H2O/docs/rules/2015/FINAfacilities_rules_20150310.pdf

There are two types of diving boards—springboard and platform.

Springboard diving

The springboards are at least 4.8m long and 0.5 metre wide and provided with moveable fulcrums easily adjusted by the diver.

For springboard diving facilities constructed on concrete platforms, the following applies:

- The vertical distance from the level of the platform, which supports the fulcrum assembly, to the level of the top of the springboard, is 0.35m.
- The distance from the front edge of the fulcrum assembly (which is 0.741m) to the front edge of the supporting platform, is a maximum of 0.44m.
- If the front edge of the platform projects past this point then the fulcrum assembly and the rear hinge assembly is moved forward so as to provide for a maximum of 0.44m from the front edge of the platform to the front of the fulcrum assembly.
- The springboards are installed dead level at the leading edge when the movable fulcrum is in all positions.
- The springboards are placed on either one or both sides of the platform.
- For synchronised diving, at least two springboards at the same height are placed side by side and no objects obstruct the visibility in any part of the dive between the divers.

Platform diving

Each platform is rigid and horizontal. The minimum dimensions of the platform are:

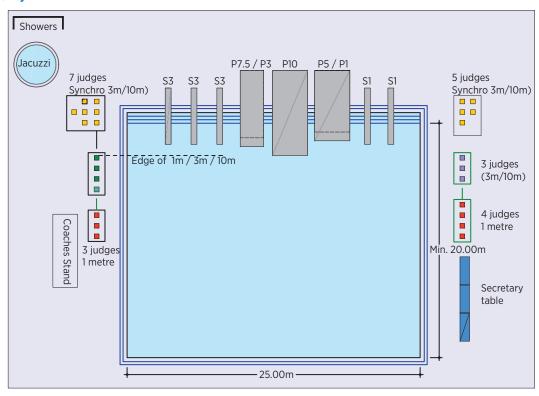
Platform	Width	Length
0.6m-1.0m	1.0m min (2.9m pref)	5.0m
2.6m-3.0m	1.0m (2.0m preferred)	5.0m
5.0m	2.9m	6.0m
7.5m	2.0m	6.0m
10.0m	3.0m	6.0m

- The preferred thickness of the front edge of the platform is 0.2m but not exceeding 0.3m, and can be vertical or inclined at an angle not greater than 10° to the vertical inside the plummet line.
- The front edge of the 10m platform projects at least 1.5m. The 2.6-3.0m platforms projects at least 1.25m and the 0.6-1m platform projects 0.75m beyond the edge of the pool.
- Where a platform is directly underneath another platform the platform above projects a minimum of 0.75m (preferred 1.25m) beyond the platform below.
- The back and sides of each platform (except 1.0m or lower platforms) are surrounded by handrails up to 1m from the edge of the platform with a minimum clearance of 1.8m between vertical pairs. The minimum height is 1.0m and has at least two horizontal crossbars placed outside the platform, beginning 1.0m from the front edge of the platform.
- Each platform is accessible by suitable stairs (not ladders) as required by the countries' building regulations and/or health and safety standards that are applicable.

References

FINA Facilities Rules 2015-2017 Part V Diving Rules. http://www.fina.org/H2O/docs/rules/2015/disciplines/FINAdvrules_20152017.pdf
FINA Facilities Rules 2015-2017 Part IX, http://www.fina.org/H2O/docs/rules/2015/FINAfacilities_rules_20150310.pdf

Diving facility



	FINA Dimensions for Diving fac	llition		SPRING	BOARD		PLATFORM									
	Differsions for Diving fac	illities	1 metre 3 metres		1 m	etre	tre 3 metres		5 metres		7.5 metres		10 metres			
		Lenght			4.	80	5.0	00	5.	00	6.0	00	6.0	00	6.0	00
Fo	or pools constructed after September, 26th, 2013	Width	0.	50	0.	50	1.00 m 2.90 pr	in. referred	1.00 m 2.00 p	in. referred	2.	90	2.0	00	3.0	00
	september, zorn, zors	Height	1.0	00	3.	00	0.60 m 1.00 pr	nin. eferred	2.60 m 3.00 p	nin. referred	5.0	00	7.!	50	10.	00
			Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert
	From plummet back to	Designation	A-1		A-3		A-1 pl		A-3 pl		A-5		A-7.5		A-10	
l a l	pool wall for CONCRETE	Minimum	2.22		2.22		0.75		1.25		1.25		1.25		1.50	
^	PLAFORM	Preferred	2.22		2.22		0.75		1.25	L	1.25		1.25		1.50	
	From plummet back to	Minimum	1.50		1.50											
	pool wall for PEDESTALS AND METAL STANDS	Preferred	1.80		1.80											
	From plummet	Designation									A/A	5/1	A/A 7	.5/3,1	A/A 10	0/5,3,1
A/A	BACK TO PLATFORM	Minimum									0.75		0.75		0.75	
	Plummet directly below	Preferred									1.25		1.25		1.25	
	From plummet to	Designation	B-1		B-3		B-1 pl		B-3 pl		B-5		B-7.5		B-10	
В	POOL WALL AT SIDE	Minimum	2.50		3.50		2.50		3.00		4.00		4.50		5.75	
		Preferred	2.50		3.50		3.50		3.60		4.50		4.75		5.75	
_	From plummet to	Designation		1-1		3,3-1		-1 pl		pl,1pl	C5-3	3, 5-1	C7.5	-5,3,1	C10-7.	5,5,3,1
С	ADJACENT PLUMMET	Minimum	2.00		2.20		1.85		2.20*		2.85*		2.75*		3.00*	
\vdash		Preferred Designation	2.00 D-1		2.60 D-3		2.15 D-1 pl		2.35* D-3 pl		2.85* D-5		2.75* D-7.5		3.00* D-10	
	From plummet to	Minimum	9.00		10.25		8.00		9.50		10.25		11.00		13.50	
D	POOL WALL AHEAD	Preferred	9.00	-	10.25	1	8.00	-	9.50	1	10.25		11.00		13.50	
\vdash		Designation	9.00	E-1	10.25	E-3	6.00	E-1 pl	9.50	E-3 pl	10.25	E-5	11.00	E-7.5	13.50	E-10
E	On plummet, from	Minimum		5.00		5.00		3.25		3.25		3.25		3.25		4.00
	BOARD TO CEILING	Preferred		5.00		5.00		3.50		3.50		3.50		3.50		5.00
	CLEAR OVERHEAD	Designation	F-1	F-1	F-3	F-3	F-1 pl	E-1 pl	F-3 pl	E-3 pl	F-5	E-5	F-7.5	E-7.5	F-10	E-10
F	behind and each	Minimum	2.50	5.00	2.50	5.00	2.75	3.25	2.75	3.25	2.75	3.25	2.75	3.25	2.75	4.00
	side of plummet	Preferred	2.50	5.00	2.50	5.00	2.75	3.50	2.75	3.50	2.75	3.50	2.75	3.50	2.75	5.00
	0.545.01.550.545	Designation	G-1	E-1	G-3	E-3	G-1 pl	E-1 pl	G-3 pl	E-3 pl	G-5	E-5	G-7.5	E-7.5	G-10	E-10
G	CLEAR OVERHEAD ahead of plummet	Minimum	5.00	5.00	5.00	5.00	5.00	3.25	5.00	3.25	5.00	3.25	5.00	3.25	6.00	4.00
	anead or planine	Preferred	5.00	5.00	5.00	5.00	5.00	3.50	5.00	3.50	5.00	3.50	5.00	3.50	6.00	5.00
	DEPTH OF WATER	Designation		H-1		H-3		H-1 pl		H-3 pl		H-5		H-7.5		H-10
н	At plummet	Minimum		3.40		3.70		3.20		3.50		3.70		4.10		4.50
	·	Preferred		3.50		3.80		3.30		3.60		3.80		4.50		5.00
ر	DISTANCE AND DEPTH	Designation	J-1	K-1	J-3	K-3	J-1 pl	K-1 pl	J-3 pl	K-3 pl	J-5	K-5	J-7.5	K-7.5	J-10	K-10
K	ahead of plummet for all	Minimum	5.00	3.30	6.00	3.60	4.50	3.10	5.50	3.40	6.00	3.60	8.00	4.00	11.00	4.25
	stands	Preferred	5.00	3.40	6.00	3.70	4.50	3.20	5.50	3.50	6.00	3.70	8.00	4.40	11.00	4.75
L	DISTANCE AND DEPTH	Designation	L-1	M-1	L-3	M-3	L-1 pl	M-1 pl		M-3 pl	L-5	M-5	L-7.5	M-7.5	L-10	M-10
M	each side of plummet	Minimum	1.50	3.30	2.00	3.60	1.40	3.10	1.80	3.40	3.00	3.60	3.75	4.00	4.50	4.25
\vdash						4.75										
N	N MAXIMUM SLOPE TO REDUCE DIMENSIONS BEYOND FULL REQUIREMENTS FOR POOL DEPTH and CEILING HEIGHTT 30 DEGREES															

* Note: The minimum distance between adjacent plaforms must be at least 0.25 metres.

Note: Dimensions B (plummet to pool wall at side) and C (plummet to adjacent plummet) apply to Platforms with widths as detailed in FR.5.2.5. If Platform widths are increased then B and C shall be increased by half the additional width(s).

Note: The 10 Metre Platform must project 0.25 metres beyond any adjacent platform.

Note: All platforms must project 0.75 metres beyond any platform directly below.

Note: The leading edge of the concrete platforms for springboards must be at least constructed to be directly above the pool wall or beyond.

Equestrian

The following are recognised equestrian disciplines:

Olympic

- Dressage
- Eventing
- Jumping

FEI disciplines

- Driving
- Vaulting
- Endurance
- Reining

National disciplines

- · Show horse
- Interschool

Dressage

In Dressage competitions, horse and rider perform a series of predetermined movements known as figures or movements.

The arena, flat and level, is 60m long and 20m wide. These measurements are for the interior of the enclosure, which is separated from the public by a minimum distance of 10m. If the competition is indoors, the arena is a minimum distance of 2m from the wall.

The enclosure consists of a low white fence about 30cm high.

The surface of the arena is made of sand or a sand mix with a non-slip base.

The standard dressage arena letters are A-K-V-E-S-H-C-M-R-B-P-F. The letters on the long sides of the arena, nearest the corners, are 6m in from the corners and 12m apart from each other. The letters along the centre line are D-L-X-I-G, with X being half way down the arena.

Eventing

Eventing comprises dressage, cross-country and show jumping. It has two main formats, the one day event and the three day event.

The first day is the dressage event, similar to regular dressage competition but rules modified so not quite as demanding. The second phase, cross-country consists of approximately 12 to 20 fixed jumps at lower levels and 30 to 40 at higher levels, placed on a long outdoor course. These fences consist of solidly built natural objects (logs, stone walls, etc) as well as various obstacles such as water, ditches, drops and banks, and combinations including several jumping efforts based on objects that would commonly occur in the countryside.

The third phase is show jumping where 12 to 20 fences are set up in an arena. These fences are brightly coloured and consist of elements that can be knocked down.

Course markings

Red or white boundary flags are used to mark the start and finish lines, compulsory passages and define obstacles.

Each obstacle on the course is numbered. The start and finish lines are marked by distinct signs.

Jumping

In modern jumping competitions, horse and rider are required to complete a course of 10 to 13 jumps, to test the horse and rider's skill, accuracy and training.

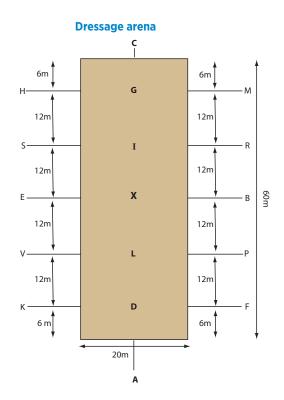
An indoor competition arena has a minimum size of 1,200sqm with a minimum width on the short side of 20m. An outdoor competition arena must have a minimum size of 4,000sqm with a minimum width on the short side of 50m.

The total length of the course in metres must not exceed the number of obstacles in the competition multiplied by 60.

The start and finish lines are no more than 15m or less than 6m from the first and last obstacle. These two lines are marked with a red flag on the right and a white flag on the left. The start line and finish line must also be marked with markers with the letters S (start) and F (finish).

Jumping courses

Under FEI rules the horse jumps a course of 10 to 16 obstacles, including verticals, spreads, and double and triple combinations, usually with many turns and changes of direction. These obstacles are up to 1.6m high and spreads of 2m. Types of jumps include vertical, oxer, triple bar, cross rail, wall, hosback, combination, fan, open water, liverpool, joker.



References

FEI Dressage Rules January 2015. Lausanne Switzerland. Equestrian Australia National Dressage Rules. 1 August 2015. http:// www.equestrian.org.au/Equestraian Australia National Eventing Rules 8 April 2015

http://www.equestrian.org.au/ FEI Jumping Rules. January 2015. Lausanne Switzerland.

Fencing

The field of play has an even surface. The portion of the field of play used for fencing is called the piste.

The piste is from 1.5m to 2m wide and 14m long.

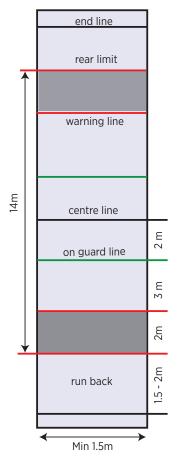
Five lines are drawn very clearly on the piste at right angles to its length, as follows:

- One centre line which is drawn as a broken line across the whole width of the piste.
- Two on-guard lines at 2m on each side of the centre line. These are drawn across the whole width of the piste.
- Two lines at the rear limits of the piste, which are drawn across the whole width of the piste, at a distance of 7m from the centre line.
- The last 2m of the piste before the rear limit lines are clearly distinguished by a different colour of the piste, to make it easy for the fencers to be aware of their position on the piste.

References

Federation International Fencing (FIE). Book 1 Technical Rules. December 2014. http://static1, fie.org/uploads/5/27570-fie_rules - technical_rules - dec_2014.pdf

Fencing piste



Flying disc

Playing field

The playing field is 100m long and 37m wide. The perimeter lines at each end are the endlines and the perimeter lines at each side are the side lines.

The perimeter lines are not part of the playing field.

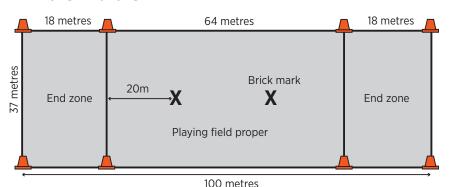
The goal lines are the lines that separate the central zone from the end zones and are part of the central zone. The end zone is 18m long and 37m wide. The central zone is 64m long and 37m wide.

The brick mark is the intersection of two crossed one metre lines in the central zone. The brick marks are 18m from each goal line, midway between the side lines.

Eight brightly coloured, flexible objects (such as plastic cones) mark the corners of the central zone and the end zones.

There is a 3m run-off zone surrounding the playing field. If play is obstructed by non-players or objects within 3m of the run-off zone, any obstructed player or thrower in possession may call "Violation".

Flying disc playing field



References

WFDF Rules of Ultimate 2013. <u>http://rules.wfdf.org/rules/ultimate/playing-field</u>

Football (soccer)

Field surface

Matches may be played on natural or artificial surfaces, according to the rules of the competition. The colour of artificial surfaces is green.

Field markings

The field of play is rectangular and marked with lines called boundary lines. The two longer boundary lines are touch lines and the two shorter lines are goal lines. It is divided into two halves by a halfway line, which joins the midpoints of the two touch lines.

The centre mark is at the midpoint of the halfway line. A circle with a radius of 9.15m is marked around it.

Marks are made off the field of play, 9.15m from the corner arc and at right angles to the goal lines and the touch lines, to ensure defending players retreat this distance when a corner kick is taken.

The length of the touch line is greater than the length of the goal line. All lines are not more than 12cm wide.

Length (touch line):

Minimum 90m, maximum 120m.

Width (goal line):

Minimum 45m maximum 90m.

For senior football the recommended field dimension is 105m long and 68m wide.

Run-off area

The run-off area or buffer zone is 3m minimum. Where pitches are located alongside each other, a minimum of 6m is required.

The run-off area beyond the pitch is free of any obstacle (including dugouts and floodlight columns) to ensure players and officials do not injure themselves by running into any fixed object.

The run-offs are surfaced with exactly the same surface as the playing area.

Goal area

Two lines are drawn at right angles to the goal line, 5.5m from the inside of each goalpost. These lines extend into the field of play for a distance of 5.5m and are joined by a line drawn parallel with the goal line. The area bounded by these lines and the goal line is the goal area.

Penalty area

Two lines are drawn at right angles to the goal line, 16.5m from the inside of each goalpost. These lines extend 16.5m into the field of play and are joined by a line drawn parallel with the goal line.

The area bounded by these lines and the goal line is the penalty area.

Within each penalty area, a penalty mark is made 11m from the midpoint between the goalposts and equidistant to them.

An arc of a circle with a radius of 9.15m from the centre of each penalty mark is drawn outside the penalty area.

Flag posts

A flag post, not less than 1.5m high, with a non-pointed top and a flag is located at each corner.

Flag posts are also located at each end of the halfway line, not less than one metre outside the touch line.

Goals

A goal is located on the centre of each goal line. A goal consists of two upright posts equidistant from the corner flag posts and joined at the top by a horizontal crossbar. The goalposts and crossbar must be made of wood, metal or other approved material. They are square, rectangular, round or elliptical in shape and are not dangerous to players.

The distance between the posts is 7.320m and the distance from the lower edge of the crossbar to the ground is 2.44m.

Both goalposts and the crossbar have the same width and depth of 12cm. The goal lines have the same width as the goalposts and the crossbar. Goal nets are attached to the posts and ground behind the goals that conforms to the Australian Standard 4866.1—2007 Playing Field Equipment – Soccer Goals. The goalposts and crossbars are white. For safety reasons goals are anchored securely to the ground.

Interchange zone

An interchange zone is marked for all competitions where unlimited interchange applies.

The interchange zone may form part of the pitch marking or identified with cones.

The interchange zone starts 1m either side of the touchline from the halfway line and extends 1m from the field of play.

Technical area

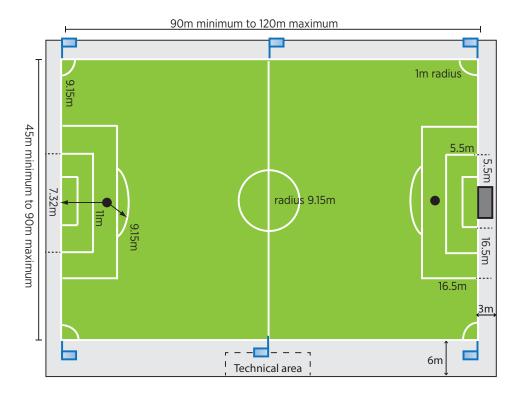
The technical area includes:

- Two team benches, capable of seating nine people in each bench.
- Cover to protect the players and officials from the elements and missiles thrown by spectators.
- Identical fixtures for both teams.
- A table and chair for the 4th Official if required.

Multi-pitch layouts

Many pitches operate alongside each other. It is important that there is a minimum of 6m clearance between pitches (3m run-off from each pitch).

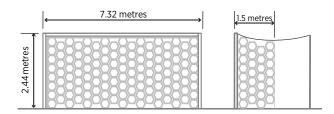
Single football pitch



Multi-pitch layout for juniors



Goals



Miniroos

Miniroos is a modified version of soccer for children aged 4-11 years. There are two programs, MiniRoos kick-off which is the introductory program and Miniroos club football for children aged 5-11 who are ready to play in a team based environment. Both programs also have girls only teams.

Miniroos Club

Goals

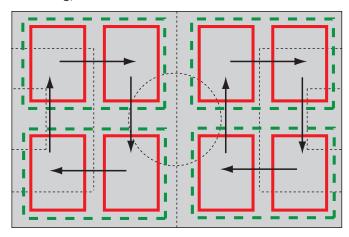
Approved, safe portable goals must be used. Poles and markers cannot be used as goals. To comply with Australian Safety Standards, portable goals must be anchored securely to the ground. The use of sandbags or pegs is recommended when using pop-up style portable goals.

Markings

Field markings can be delivered by markers, traditional line marking, or a combination of both .

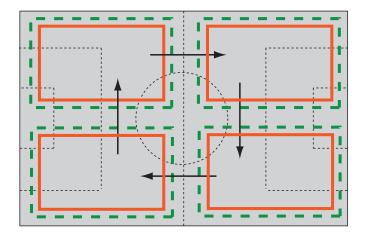
Under 6 and 7

No of players	4 a side no goalkeeper, max 3 substitutes
Field of play	30m long x 20m wide
Goal size	2m wide x 1m high
Ball size	Size 3
Duration	15 min halves Min 5 min half time break
Penalty area	None



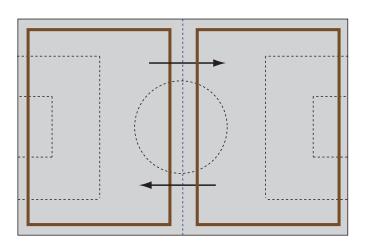
Under 8 and 9

No of players	7 a side including goalkeeper, max of 4 substitutes
Field of play	Min: 40m long x 30m wide Best practise: 45m long x 35m wide Max: 50m long x 40m wide
Goal size	3m wide x 2m high
Ball size	Size 3
Duration	20 min halves Min 5 min half time break
Penalty area	5m deep x 12m wide



Under 10 and 11

No of players	9 a side including goalkeeper, max of 5 substitutes
Field of play	Min: 70m long x 50m wide Best practise: 65m long x 45m wide Max: 60m long x 40m wide
Goal size	5m wide x 2m high
Ball size	Size 4
Duration	25 min halves, Min 5 min half time break
Penalty area	5m deep x 12m wide



Futsal

Futsal is the only form of indoor soccer or five-a-side that is officially approved by FIFA and Football Federation Australia (FFA).

Pitch surface

The surface is flat, smooth and nonabrasive, preferably made of wood or artificial material, according to the rules of the competition. Concrete or tarmac should be avoided.

Artificial turf pitches are permitted in exceptional cases and only for national competitions.

Pitch markings

The pitch is rectangular and marked with lines 8cm wide. The two longer lines are touch lines, the two shorter lines are goal lines. The touch line is longer than the goal line.

The pitch is divided in half by a halfway line, which joins the midpoints of the two touch lines. The centre mark is at the midpoint of the halfway line and is marked with a circle 3m in radius.

A mark 8cm wide is drawn outside the pitch, 5m from the corner arc and at right angles to the goal line, to ensure that defending players retreat this distance when a corner kick is being taken.

Two marks, 8cm wide, each at a distance of 5m to the left and the right of the second penalty mark, are marked on the pitch to indicate the minimum distance to be retreated when a kick is being taken from the second penalty mark.

Dimensions

For non-international matches the dimensions are as follows:

Length (touch line):

Minimum 25m maximum 42m.

Width (goal line):

Minimum 16m maximum 25m.

For international matches the dimensions are as follows:

Length (touch line):

Minimum 38m maximum 42m.

Width (goal line):

Minimum 20m maximum 25m.

Penalty area

Two imaginary lines 6m long are drawn from the outside of each goalpost and at right angles to the goal line. At the end of these lines a quarter circle is drawn in the direction of the nearest touch line, each with a radius of 6m from the outside of the goalpost. The upper part of each quarter circle is joined by a line 3.16m long running parallel to the goal line between the goalposts. The area bounded by these lines and the goal line is the penalty area.

Within each penalty area, a penalty mark is made 6m from the midpoint between the goal posts and equidistant to them.

A second mark is made 10m from the midpoint between the goalposts and equidistant to them.

The corner arc A quarter circle wi

A quarter circle with a radius of 25cm from each corner is drawn inside the pitch.

Goals

A goal must be placed on the centre of each goal line.

A goal consists of two upright posts equidistant from the corners and joined at the top by a horizontal crossbar. The goalposts and crossbar are made of wood, metal or other approved material. They are square, rectangular, round or elliptical in shape and are placed on the centre of each goal line.

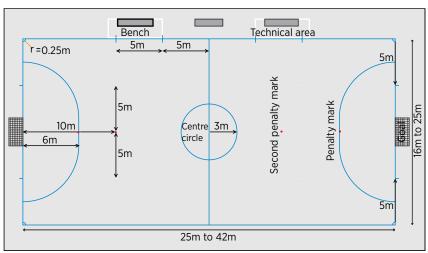
The distance (inside measurement) between the posts is 3m and the distance from the lower edge of the crossbar to the ground is 2m.

Both goalposts and the crossbar have the same width and depth, 8cm. The nets are made of hemp, jute or nylon or other approved material and are attached to the back of the goalposts and the crossbar. The goalposts and crossbars are a different colour from the pitch.

The goals must have a stabilising system that prevents them from overturning. Portable goals are only used if they satisfy this requirement.

The substitution zones

The substitution zones are the areas on the touch line in front of the team benches and are 5m long. They are marked at each end with a line 80cm long, 40cm of which is drawn on the pitch and 40cm off the pitch, and 8cm wide.



References

FIFA Laws of the Game 2015. Fédération Internationale de Football Association, Zurich, Switzerland. www.fifa.com.au AIA Vitality Mini Roos National Playing Formats and Rules. www.miniroos.com.au Futsal Laws of the Game 2012/2013. FIFA, Zurich, Switzerland.. www.fifa.com.au Field Markings and Equipment. A guide to preparing your field for football. Football NSW November 2015. http://www.footballfacilities.com.au/field-markingsequipment/

Football— Australian Rules

Open age

Playing surface

The playing surface is oval in shape, 135m to 185m long and 110m to 155m wide. The preferred senior oval size is 165m x 135m as this provides the greatest flexibility to cater for all standards of play.

A white line called the boundary line is drawn in the shape of an arc from the behind post at one end of the playing surface to the behind post at the other end of the playing surface.

The playing field boundary line should ensure adequate run-off from any perimeter fencing or potential obstacles. The preferred minimum distance for existing facilities is 5m for state league, 4m for regional and 3m for local level facilities, however where new ovals are to be constructed it is encouraged that the higher run-off distance of 5m be provided where possible.

The following areas are marked on the playing surface:

- The centre square, is located at the centre of the playing surface and is 50m long and 50m wide.
- A centre circle, 3m in diameter, and an outer circle, 10m in diameter are located in the middle the centre square and are divided by two semi-circles, drawing a straight line parallel with each goal line.
- An interchange area 15m wide.
- A goal square at each end of the playing surface. This is marked by drawing lines at right angles to the goal lines, 9m from each goal post and connected at the outer end by a line called the kick-off line.
- A goal line and a behind line.
- A 50m arc at each end of the playing surface.

Goal posts and behind posts

Two posts, called goal posts, a minimum height of 6m, are placed at each end of the playing surface 6.4m apart. This measurement is taken from the inside point of the goal post at ground level.

A further two posts, called behind posts, a minimum height of 3m, are placed at a distance of 6.4m on each side of the goal posts so that a straight line can be drawn on the ground to join each post.

The padding attached around each goal and behind post is:

- Minimum of 35mm thick foam, covered in canvas or painted.
- Minimum height of 2.5m from the bottom of each goal and behind post.
- Suitable width to allow the padding to be securely fixed around each goal and behind post.

Coaches boxes

Two coaches boxes are to be provided (home and away team) on the side of the ground, looking away from the sun and positioned adjacent to the centre wing position.

Interchange

The interchange area is 15m wide. Two interchange benches are provided (home and away team). For local and regional competitions they are 4.8m long and 1.2m wide.

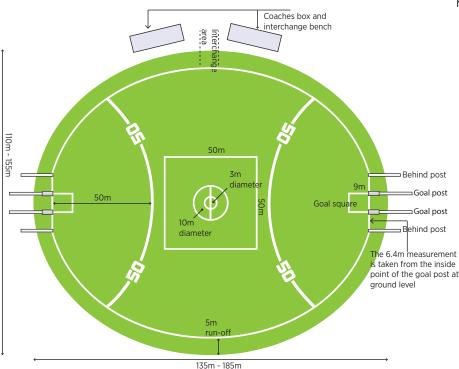
Fencing

It is recommended that the oval fencing is approximately 900mm high with a mesh infill or similar, and allows a 5m run-off distance from the playing field boundary. Adequate gates and access for maintenance and emergency vehicles, players and officials is required.

References

Laws of Australian Football 2015. Australian Football League (AFL). Melbourne Vic. Junior Football Match Guide. This is Our Game. AFL Preferred Facility Guidelines for State, Regional and Local Facilities August 2012. Coffey Sport and Leisure, Southbank, Vic. http://www.aflcommunityclub.com.au/

AFL 9s Rules and Regulations The Game for Everyone. http://afl9s.com.au/rules/



Junior Australian Rules

Junior Australian Rules football has been developed to provide an environment where young players can play the game, develop their skills through conditions commensurate with their stage of learning and level of ability. This includes a reduced playing area, playing time and suitably modified equipment to suit the younger players.

This philosophy is delivered through the AFL Auskick program and a junior football match program.

Below are the guidelines for playing fields for junior football.

Run-off

The required run-off for all junior football is a minimum of 3m.

Auskick Under 8

The maximum size of the playing field is 80m long and 60m wide and divided into three equal zones (thirds). These are identified by markers or lines on a ground.

Backs must stay in the back zones, centres in the centre zone and forwards in the forward zone.

The minimum number of players per side is 6 and the maximum is 12. This can be modified to ensure all players participate.

Six a side can be 2 forwards, 2 centres, 2 back plus reserves.

Nine a side is 3 forwards, 3 centres and 3 backs plus reserves.

Twelve a side means 4 forwards, 4 centres, 4 backs plus reserves.

Under 9's and Under 10's

The maximum size of the playing field is 100m long and 80m wide and divided into three equal zones (thirds). These are identified by markers or lines on a ground.

Backs must stay in the back zones, centres in the centre zone and forwards in the forward zone.

The minimum number of players per side is 12 and the maximum is 15. This can be modified to ensure all players participate.

Twelve a side can be 4 forwards, 4 centres, 4 backs plus reserves.

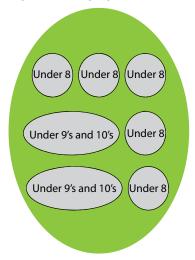
Fifteen a side is 5 forwards, 5 centres and 5 backs plus reserves.

Under 11's and Under 12's

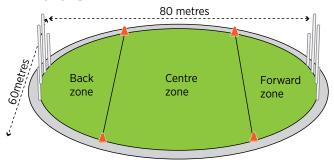
A full size field is allowed unless the dimensions are clearly unsuitable for the number and skill level of the players involved.

The minimum number of players is 15 and the maximum number is 18. There are not any zones.

Layout of multiple junior fields



Auskick playing field



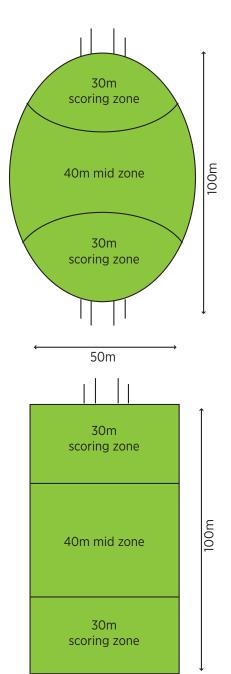
AFL 9s

AFL 9s is the official alternative to the game for all ages and ability levels for male, female and mixed competitions.

The playing ground

The recommended playing field is a maximum of 100m long and 50m wide and is divided into three zones, a mid zone and two scoring zones. The zones are set as 30m/40m/30m.

The grounds can be oval or rectangular as shown below:



Gaelic football

Playing field

The field of play is between 130m and 145m long and 80m to 90m wide. The dimensions may be reduced for underage games or games of less than 15 a side.

Line markings

All lines are marked in white. The lines on the playing field are 90mm ± 13mm.

Lines are marked across the field parallel to the endline at distances from each endline of 13m, 20m and 45m. The intersection of these lines and of the endlines with the side lines are marked with flags or cones. If flags are used, they set back at least one metre from the sideline and placed on an angle.

The midline of the field is marked parallel to the endlines and is 10m long. Boundary lines are part of the field of play.

Two rectangles are formed in front of the scoring space as follows:

- One rectangle, 14m by 4.5m is formed by two lines 4.5m long and at right angles to the endline, marked 3.75m from the inside of each goal post and the ends of the lines are joined.
- A second rectangle 19.5m by 13m is formed by two lines 13m long at right angles to the endlines, marked 6.25m from the inside of each goal post and the ends of the lines are joined.
- The endline, including the goal line is part of each rectangle. The other three lines enclose the area of that rectangle.

A semi-circular arc of 13m radius, centred on the midpoint of the 20m line is marked outside of each 20m line.

A point is marked 11m from the centre of the goal line, where a penalty kick is taken.

Interchange/substitution zone

An area of the sideline extending 5m on either side of the centre line is marked as the Interchange/ Substitution Zone and all players coming off/going on to the field of play in acts of interchange/ substitution/temporary substitution go through this point.

Goals

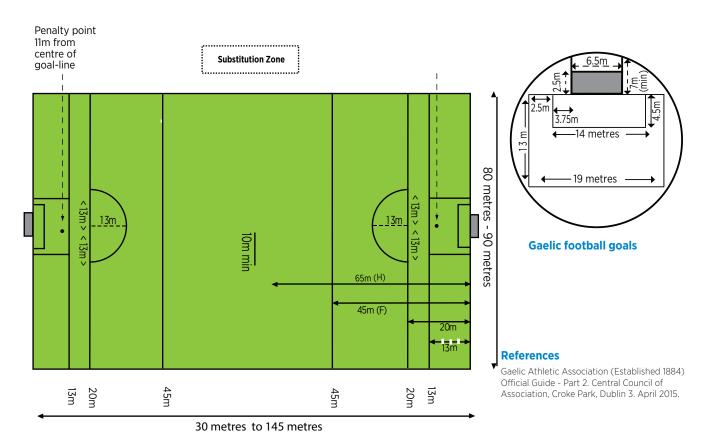
The scoring space is at the centre of each endline. Each is formed by two goalposts, circular in cross section, and are not less than 7m high and are 6.5m apart.

The inside edge of the endline is at a tangent to the front edge of the base of the goal posts.

A cross is fixed to the goalposts 2.5m above the ground. The crossbar has a rectangular or circular cross section.

If rectangular, the depth is 140mm + 10mm and the width not less than 50mm. When circular, it has a uniform diameter of 125mm + 5mm.

Goal nets are securely fixed to the back of the crossbar and the back of each goal post.



Gymnastics

The disciplines recognised by Federation International de Gymnastique (FIG) and Gymnastics Australia are:

- · Gymnastics for all
- Artistic gymnastics
- · Rhythmic gymnastics
- Trampoline
- Aerobic gymnastics
- Acrobatic gymnastics

For further technical specifications see the FIG Apparatus Norms Guide 2015 available on their website www.fig-gymnastics.com/publicdir/rules/files/app-norms/Apparatus_Norms_2015-e.pdf

Men's artistic gymnastics (MAG)

There are six competitive apparatus in the MAG:

- Floor
- · Pommel horse
- Rings
- Vault
- · Parallel bars
- Horizontal bar

The standard performance area for both men and women is $12m \times 12m$. The border is 100cm minimum and where there is a delimitation strip between the performance area and the border, the strip is 5cm wide and included as part of the performance area.

Landing mats

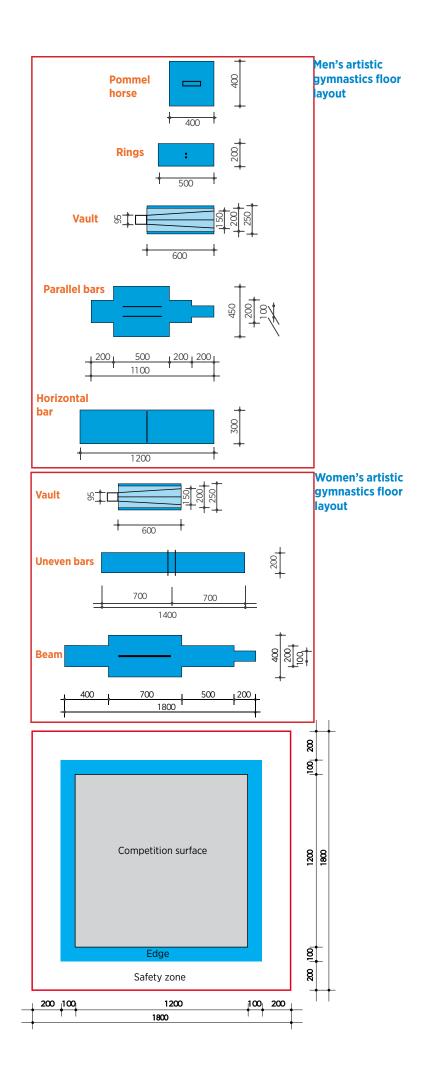
Preference should be given to uniform colours.

The thickness of the mats for pommel is 100mm and for all other events, 200mm.

Womens Artistic Gymnastics (WAG)

There are four competitive apparatus in Women's Artistic Gymnastics:

- Vault
- Uneven bars
- Beam
- Floor



Rhythmic gymnastics

Rhythmic includes five apparatus: rope, hoop, ball, clubs and ribbon. However, only four of these are used in a two year competition cycle.

The performance area is slightly larger than artistic gymnastics, a 13m x 13m square. The surface is horizontal, even and without gaps.

The border is horizontal, even and at the same height as the performance area. It is 50cm in area.

The safety zone is kept totally free as a surrounding zone around the performance area and the border. It is horizontal, even and without gaps. The safety zone is 200cm.

Aerobic gymnastics

Aerobic Gymnastics requires the ability to perform continuous complex and high intensity movement patterns to music, which originates from traditional aerobic. Aerobic gymnasts can compete in following classes:

- Individual Men's, Individual Women's, Mixed Pairs, Trio, Group (of 5 gymnasts),
- Aerobic Step (8 gymnasts)
- Aerobic Dance (8 gymnasts)

The performance area for single events is $7m \times 7m$ and the performance area for duo, trio and groups is $10m \times 10m$. The competition area is surrounded by a black delimitation strip.

The border is horizontal, even and at the same height as the performance area. It is 100cm in area. The safety zone is also 100cm.

Trampoline gymnastics

Trampoline gymnastics has three apparatus:

- Individual trampoline (TRP) and synchronised trampoline (SYN)
- Double-mini trampoline (DMT)
- Tumbling (TUM).

Section 2.5 (pages 101 to 122) of the document *FIG Apparatus Norms 2015* provides the technical information for each apparatus. These norms include safety padding, platforms (end decks) and mats.

Acrobatic Gymnastics

Acrobatic gymnastics has the same performance area as Women's Rhythmic Gymnastics.

Competition surface Edge Safety zone

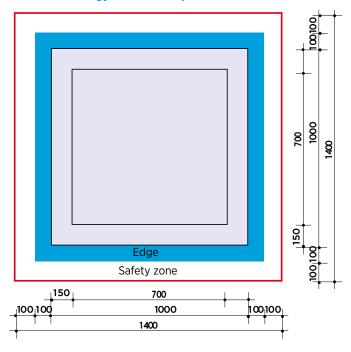
Aerobic gymnastics competition area

1800

1300

200 25 25

^{25 25} **200**



References

Fédération Internationale De Gymnastique (FIG) Apparatus Norms 2015. http://www.fig-gymnastics.com/site/page/view?id=401 http://www.fig-gymnastics.com/publicdir/rules/files/app-norms/Apparatus_Norms_2015-e.pdf

Summary of apparatus, safety zones and total surfaces

Discipline	Apparatus	Floor area (metres)	Height of hall (metres)	Height of hall (international)		
	MAG Floor 18.00 x 18.00					
	MAG Pommel horse	4.00 x 4.00				
Mens's artistic	MAG Rings	6.00 x 6.00	700			
gymnastics (MAG)	MAG Vaulting table	5.00 x 35.00	7.00	8.00-10.00		
	MAG Parallel bars	6.00 x 12.00				
	MAG Horizontal bar	6.00 x 12.00				
	WAG Vaulting table	5.00 x 35.00				
Women's artistic	WAG Uneven bars	6.00 x 14.00				
gymnastics (WAG)	WAG Balance beam	6.00 x 18.00	6.00	8.00-10.00		
	WAG Floor	18.00 x 18.00				
Rhythmic gymnastics (RG)	RG 1 Performance area	18.00 x 18.00	8.00	10.00-12.00		
Aerobic gymnastics (AG)	AER 1 Performance area	18.00 x 18.00	6.00	8.00-10.00		
Trampoline gymnastics (TRA)	TRA 1 Trampoline (sync)	15.00 x 15.00	8.00	10.00-12.00		
	TRA 2 Double mini tramp	5 x 35.00	6.00	0.00.10.00		
	TRA 3 Tumbling track	5 x 45.00	5.00	8.00-10.00		
ACRO Acrobatic gymnastics	ACRO 1 Performance area	18.00 x 18.00	7.00	8.00-10.00		

Handball

Handball is currently played in the following formats:

- Handball
- Field Handball
- Wheelchair Handball
- · Beach Handball
- Street Handball
- · Mini Handball.

Handball - indoor

Playing court

The playing court is 40m long and 20m wide, with two goal areas and a playing area. The longer boundary lines are called side lines, and the shorter ones are called goal lines (between the goalposts) or outer goal lines (on either side of the goal).

There is a safety zone surrounding the playing court, with a minimum width of one metre along the side lines and 2m behind the goal lines.

Goals

A goal is placed in the centre of each outer goal line. The goals must be firmly attached to the floor or to the walls behind them. The goals are 2m high and 3m wide.

The goalposts are joined by a horizontal crossbar. The rear side of the goalposts are in line with the rear edge of the goal line. The goalposts and the crossbar have an 8cm square cross section.

On the three sides which are visible from the court they are painted in bands of two contrasting colours, which also contrast with the background.

The goals have a net, attached in such a way that a ball thrown into the goal remains in the goal.

Lines

All lines on the court are part of the area that they enclose. The goal lines are 8cm wide between the goalposts. All other lines are 5cm wide.

Lines between two adjacent areas may be replaced with a difference in colours between the adjacent areas of the floor.

In front of each goal there is a goal area. The goal area is defined by a 6m goal area line which is drawn as follows:

 A 3m line directly in front of the goal. This line is parallel to the goal line and 6m away from it (measured from the rear edge of the goal line to the front edge of the goal area line). Two quarter circles, each with a radius of 6m (measured from the rear inner corner of the goalposts), connecting the 3m line with the outer goal line.

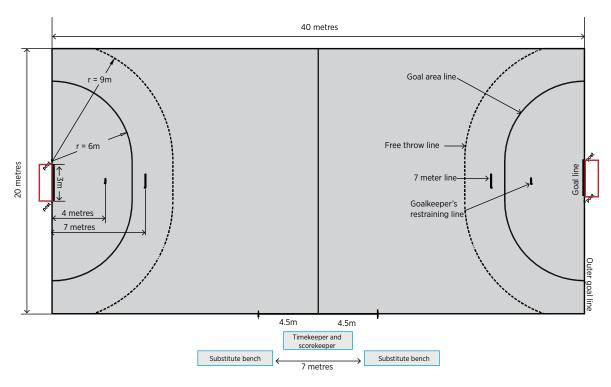
The 9m free throw line is a broken line, drawn 3m outside the goal area line. Both the segments of the line and the spaces between them measure 15cm.

The 7m line is a one metre line, directly in front of the goal. It is parallel to the goal line and 7m away from it (measured from the rear edge of the goal line to the front edge of the 7m.

The goalkeeper's 4m restraining line is 15cm long and is directly in front of the goal. It is parallel to the goal line and 4m away from it (measured from the rear edge of the goal line to the front edge of the 4m line).

The centre line connects the midpoints of the two side lines.

The substitution line (a segment of the side line) for each team extends from the centre line to a point at a distance of 4.5m from the centre line. This end point of the substitution line is enhanced by a line which is parallel to the centre line, extending 15cm inside and 15cm outside the sideline.



Beach handball

Playing court

The playing court is 27m long and 12m wide. There is a 3m safety zone surrounding the playing court.

The playing surface consists of sand at least 40cm deep.

The playing area is 15 long, 12m wide and the goal area 6m in length. The goals are 2m high and 3m wide.

Substitution areas

The substitution areas for the court players are 15m long and 3m wide and situated on each side of the playing area.

Lines

The court is marked with lines that belong to the areas of which they are boundaries. The two longer boundary lines are called side lines. The two shorter boundary lines are called goal lines, although there is no line between the goalposts. The goal area lines are 6m from and parallel to the goal line.

The court is divided into two halves by an imaginary halfway line. The middle of this imaginary line is the exact position for the referee throw.

All lines are between 5 and 8cm wide and made of solid colour tape contrasting with the sand (blue, vellow or red). The tape is flexible and hard wearing, firmly anchored to the sand at each corner and at the intersection of each goal area line/side line with buried dead man

A bungee cord is attached to each corner and connected to buried wood or a plastic anchor disk (without sharp edges). The bungee provides the tension necessary to keep the boundaries in place while giving the flexibility to reduce the chances of injury should a player or official catch their foot under the line. The goals are affixed to the lines with rubber rings attached to the posts. The anchors must not create a danger for the players and officials.

Goal

A rectangular goal is positioned at the middle of each goal line. It consists of two upright posts equidistant from each corner and joined at the top by a horizontal crossbar.

The goal posts extend vertically. The height is 2m from the sand surface to the underside of the crossbar. and the internal distance between the vertical goal posts is 3m.

anchors.

The goal posts and horizontal crossbar that form the tubular aluminium frame have an external diameter of 8cm and are painted in a solid colour contrasting clearly with the sand and with the background (yellow, blue, or red). The colour of both goals must be the same.

The goal posts and horizontal crossbar are completed by a frame supporting the netting, the deepest point is 80cm at the top and one metre at the bottom.

Each goal includes a net, made of heavy duty nylon (or other similar synthetic material, knot free, mesh 80mm x 80mm or smaller, thickness 6mm). It is attached to the back of the goal posts and crossbar.

For the safety of the players and officials, the bottom of each goal is anchored beneath the sand. The anchors must not create a danger for the players.

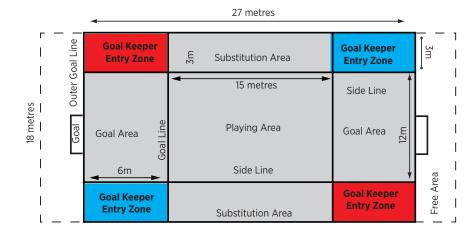
At 3m behind each goal area catch (stopping) nets must be loosely suspended along the entire length of the playing court (12m x 7m high). The catch (stopping) nets must adequately reach the sand.

Mini handball

Mini handball is a modified form of the game for children aged 8-11.

The game is played on a smaller court: 20-24m long x 12-16m wide (20m x 13m is exactly one third of the normal handball court).

A ball with a circumference of 44cm-49cm is used. It is soft, not too heavy, must bounce well and easy to grab to guarantee a "fear free" game.



References

International Handball Federation. Rules of the Game. Peter Merian-Strasse 23, Switzerland, International Handball Federation. Rules of the Game. Switzerland. 8 July 2014. http://www.iihf. com/iihf-home/sport/iihf-rule-book/ Handball Australia http://www.handballaustralia. org.au/

Hockey

All forms of hockey are governed by the rules of hockey as set down by the International Hockey Federation (FHI).

Outdoor hockey

Field of play

Pitch boundary

The pitch on which field hockey is played is 91.4m long and 55m wide. This boundary is marked on the turf and the shorter lines are called backlines.

Centre line

A straight line is drawn midway between the backlines, and parallel to them. This centre line divides the pitch into two equal parts.

25 yard line

In each half, another parallel line is drawn at a distance of 22.9m from the backline. This distance converts to 25 yards, hence this is called the 25 yard line. This divides the pitch into four equal parts.

The areas enclosed by and including the 22.9m lines, the relevant part of the side lines and the backline are known as the 23m areas.

Striking circle or "D":

From the center of each backline, a point is marked 1.8m away and a quarter circle arc having a radius of 14.63m is drawn from here on the inside of the field. The two quarter circles are joined at the top by a straight line measuring 3.66m to form the D-shaped striking circle, also referred to as the "D". Another set of quarter circles are drawn outside these 5m away. These arcs are not solid, but dashed.

Penalty spot

From the center of the baseline, this point is marked 6.475m towards the inside of the pitch with a width 0.2m.

Penalty corner defender's and attacker's marks

At 4.975m and 9.975m away from the center of each backline in either direction, a line 0.3m long is drawn. Each backline has four such markings. These are known as the penalty corner defender's and attacker's marks, respectively.

Long corner attacker's mark

Long corners are now taken from the 23m line. Along each sideline at 5.0m from the backline, a line 0.3m long is drawn to form this mark.

Goal area

Goal Post

Each goal post is 2.14m high and 0.05m wide. The goals posts are white.

Goal

Each post is placed 1.83m away from the center of the backline, one on either side, with a depth of 1.2m. This makes the total goal width 3.66m.

Net

The black net consists of mesh whose spacing should not exceed 0.04m. It is fixed to the goal posts, bar, sideboards and backboard at intervals of 0.15m or less, to form netting around the top, sides and back of the goal. This net is not to be too tight to avert the ball that is hit into the goal from rebounding off the net.

Run-off

The playing surface extends at least 2m at the backlines and one metre at the side lines with an additional unobstructed one metre. This equates to a total of 3m at each end and 2m at each of the sides of the field.

These are minimum requirements with the recommended areas being 5m at each end and 3m at each side of the field.

Sideboards and backboards

The sideboards and backboards are 0.5m high from the ground. The backboard runs the length of the goal and is 3.66m across.

The sideboard depth is 1.20m at ground level and both are placed in parallel for each goal, perpendicular to the backboard. The colour of the backboard and sideboards should be darker than that of the pitch.

Flag posts

Flag posts between 1.2m and 1.5m high are located at each corner of the field.

Rookey

Rookey is a modified hockey game for children that is played as part of the Hookin2hockey program for children aged 5-10 years.

The Rookey pitch is divided into three zones of equal size using cones or markers along the sideline and if required, across the playing area. Goals can be created using cones or markers and are 3m wide.

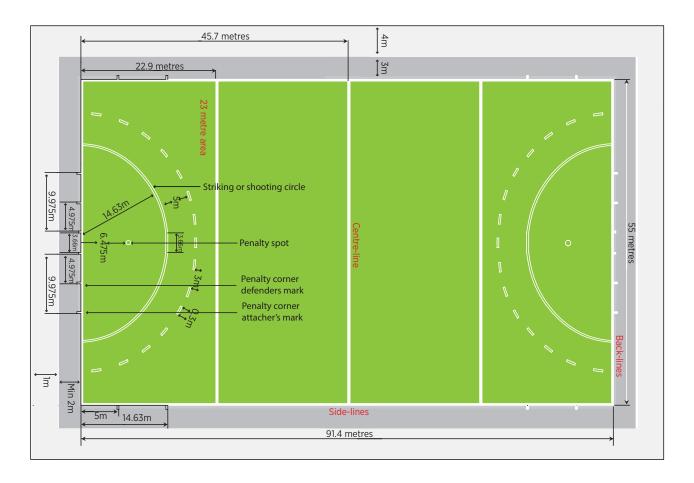
The size of a Rookey pitch will depend on the number of players per team.

Below is a guide to the pitch size required for different numbers of players.

No of players per team	Hockey pitch	No hockey pitch
6	Quarter field	30-35m wide 50-60m long
7	Quarter field	30-35m wide 50-60m long
8	Half field	40-45m wide 65-75m long
9	Half field	40-45m wide 65-75m long

References

IRules of Hockey. International Hockey Federation. Lausanne Switzerland 2014. www.fih.ch/ media/8997802/rules-of-hockey-2015.pdf. Rules of Indoor Hockey. The International Hockey Federation. Lausanne Switzerland. January 2016. Hookin2Hockey. Hockey Australia. 2015. www.hookin2hockey.hockey.org.au/ Home



Indoor hockey

Playing pitch

The pitch is 44m long bounded by sideboards and 22m wide bounded by backlines. A smaller pitch may be used in national or local regulations. The minimum size of a pitch is 36m long and 18m wide.

The minimum run-off area recommended is 3m outside the backlines and one metre outside the side lines.

The space outside the pitch, behind but including the goal posts and crossbar and enclosed by the net is a minimum of 800mm deep at the crossbar and a minimum of 1m deep at ground level.

Lines and markings

All lines are 50mm wide. The backlines and all markings enclosed between them and the sideboards are part of the pitch.

All marks are in a colour that contrasts with the playing surface. If played on a surface marked with lines for other sports, they are a distinctive colour.

The following lines are marked on the pitch:

- Backlines: 18m to 22m long perimeter lines.
- Goal lines: part of the backline between the goal posts.
- Centre line across the middle of the pitch.
- 300mm lines inside the pitch on each backline on both sides of the goal at 6m from the outer edge of the nearer goalpost, as measured between the furthest edges of each lines.
- 150mm lines outside the pitch on each backline 1.5m from the centre of the backline, as measured between the nearest edges of these lines.

 Penalty spots 100mm in diameter in front of the centre of each goal with the centre of each spot 7m from the inner edge of the goal line.

Circles

The following circles are marked on the pitch:

- Lines 3m long and parallel to the backlines are marked inside the pitch with their centres in line with the centres of the backlines. The distance from the outside edges of these 3m lines to the outside edges of the backlines is 9m.
- These lines are continued in uninterrupted arcs in both directions to meet the backlines in the form of quarter circles with centres at the inside front corner of the nearer goal posts.

- The 3m line and arcs are called the circle lines. The spaces enclosed by these lines, including the lines themselves, are called the circles.
- Broken lines are marked with their outer edges 3m from the outer edge of each circle line. Each broken line starts with a solid section at the top centre of the circle line. Each solid section is 300mm long with gaps between the solid sections 2m long.

Pitch sideboards

The pitch sideboards are:

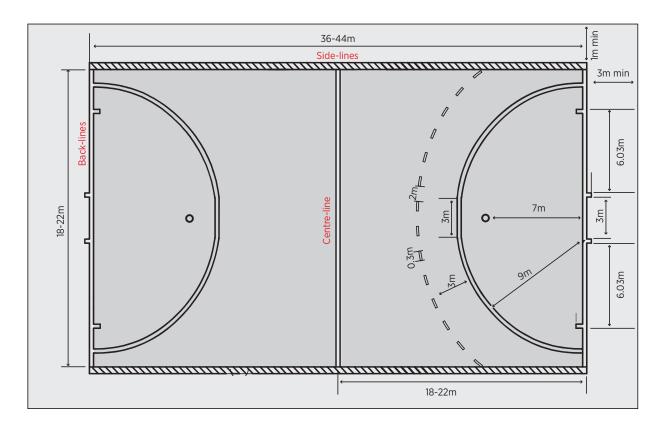
- Marked on the 36m to 44m long perimeter of the pitch.
- Based on a square 100mm crosssection and the upright surface facing the pitch is inclined by 10mm towards the pitch.
- Made of wood or materials with similar physical properties.
 They must not having fittings or supports which are dangerous to players or umpires.

Goal sideboards and backboards

Goal sideboards and backboards are not mandatory but if fitted should conform to the following specifications:

- Sideboards are minimum 0.92m long and 460mm high.
- Backboards are 3m long and 460mm high.
- Sideboards are positioned on the ground at right angles to the backline and are fixed to the back of the goal posts without increasing their width.
- Backboards are positioned on the ground at right angles to the goal sideboards, parallel to the backline, and are fixed to the end of the goal sideboards.
- Sideboards and backboards are of a dark colour on the inside.

Indoor hockey pitch



Ice hockey

Dimensions of the ice rink

For top level International Ice Hockey Federation (IIHF) competitions, the recommended dimensions of the rink are 60m long and 25–30m wide.

For IIHF World Championship tournaments, the official dimensions are 60m long and 30m wide.

The corners of the rink are rounded in the arc of a circle with a radius of 7.0m to 8.5m.

The rink is divided by the red centre line, has two blue lines, nine face-off circles, the goals and the creases.

Ice surface markings—zones

The area where the goal net is located is the defending zone for the team defending that net.

The middle of the rink, between two blue lines, is the neutral zone.

The area where the opposing net is located is the attacking zone or offensive zone.

The 30cm wide centre red line divides the length of the rink equally.

The two 5cm wide icing lines are marked 4m from the flat and middle sections of the end boards at both ends of the rink.

The blue lines are 22.86m from the flat and middle sections of the end boards at both ends of the rink and are 30cm wide.

For open air rinks, all lines are 5cm wide

Ice surface markings—faceoff circles

There are nine face-off spots on the ice. These are the only places at which an on-ice official can drop the puck to begin game action.

All face-off spots are red except for the one at centre ice which is blue. This is the centre face-off circle and is 30m in diameter.

Four face-off spots 60cm in diameter are marked in the neutral zone.

Four face-off spots 60cm in diameter and red circles 5cm wide with a radius of 4.5m from the centre of the face-off spot are marked on the ice in both end zones and on both sides of each goal.

Rink boards

The rink is surrounded by boards made out of sections of wood or plastic and painted white. The boards are 107cm high from the ice surface.

Ice surface markings creases

There are three creases on the ice: one for each goaltender in front of either goal net and one at the boards by the scorekeeper's bench for on-ice officials.

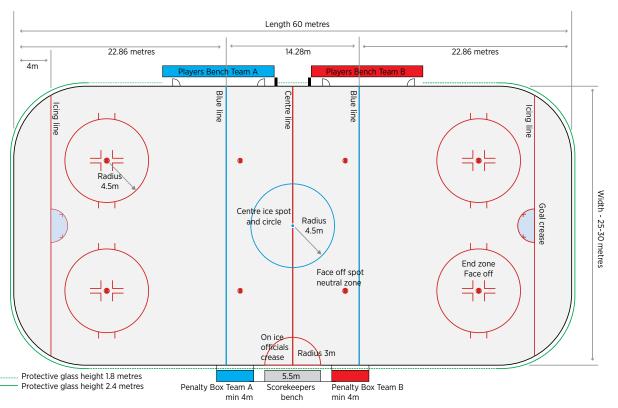
Protective glass

Transparent plexiglas, 12m-15mm thick, is affixed to the top of the boards. The glass is 2.4m high behind the goals and extends a minimum of 4m from the icing line towards the blue line. The glass is 1.8m high along the sides except in front of the players' benches.

There is no protective glass in front of the players' benches. There is protective glass behind and along the sides of the players' benches and penalty boxes.

References

The IIHF Official Rule Book 2014-2018. July 2015 2nd Edition. <u>Zurich Switzerland. ww.iihf.com</u>



Judo

The competition area is a minimum of 14m x 14m and is divided into two zones.

The inner zone called the contest area is a minimum of 8m x 8m to a maximum of 10m x 10m.

The outer zone is the safety area and is a minimum of 3m wide.

The contest area is a different colour to the safety area.

When using two or more adjoining competition areas, the common or shared safety area is 4m.

A free zone, a minimum of 50cm, must be maintained around the entire competition area.

Tatamis

The competition area is covered by a Tatamis or similar material. The Tatamis is made of pressed foam and is 1m x 2m or 1m x 1m.

Platform

The platform is optional and is made of solid wood. It measures approximately 18m x 18m. When using a platform, it is recommended that the safety area is a minimum of 4m wide around the competition area.

Karate

WKF karate competition has two disciplines: sparring (kumite) and forms (kata). Both competition areas are flat and devoid of hazards.

Competitors may enter either as individuals or as part of a team.

Kumite competition area

The competition area is an 8m square with an additional 2m on all sides as a safety area.

A line half a metre long must be drawn 2m from the centre of the competition area for positioning the Referee.

Two parallel lines each one metre long and at right angles to the Referee's line, are drawn at a distance of 1.5m from the centre of the competition area for positioning the competitors.

Each judge is seated at the corners on the mat in the safety area.

The Match Supervisor is seated just outside the safety area, behind, and to the left or right of the Referee.

The score supervisor is seated at the official score table, between the scorekeeper and the timekeeper.

Kata

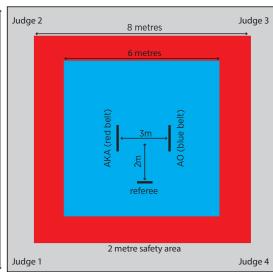
The competition area for Kumite is used for Kata.

The Chief Judge sits in the centre position facing the contestants and the other four Judges are seated at the corners of the competition area.

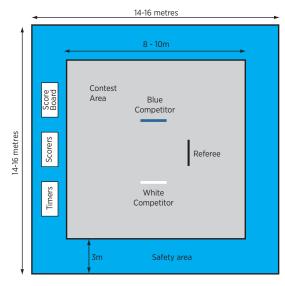
References

International Judo Federation. Refereeing Rules 2014-2016. http://www.intjudo.eu/
World Karate Federation. Kata And Kumite
Competition Rules. Revision 9.0. 1 January.2015. http://www.wkf.net/

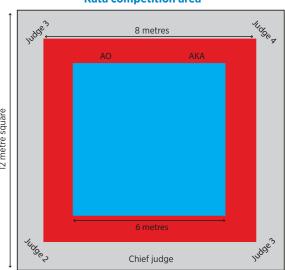
Kumite competition area



Judo competition area



Kata competition area



Lacrosse

Men's field lacrosse

All lines referred to in this section (except the centre line and the goal lines) are 5cm wide. The centre line is 10cm wide. The goal lines are the same width as the goal posts.

Where other lines appear on the field of play, the lines referred to in this section are all one colour, and that colour contrasts with the colour of the other lines.

The playing field

The playing field is 110m long and 60m wide.

The boundaries are marked with white lines. The centre line is marked by an extra heavy white line through the centre of the field perpendicular to the side lines.

The boundary lines on the long sides of the field are side lines, the boundary lines at each end are end lines.

Soft, flexible cones or pylons of red or orange plastic or rubber are placed at the four corners of the field, each end of the gate within the special substitution area, the ends of the men's goal area lines and the end of the centre.

Goals

Each goals consists of two vertical posts joined by a rigid crossbar. The posts are 1.83m apart and the top crossbar is 1.83m from the ground, all insides measurements.

The goal posts/pipes and crossbar are 5.1cm square or 5.1cm in diameter and are silver or painted white or orange. The goal posts are centred between the side lines and place 12m from each end lines.

Around each goal is a circle known as the goal crease. This circle is marked by using the midpoint of the goal line as the centre and drawing a circle around that point with a radius of 2.74m.

The goal crease area is the circular ground territory about each goal within and including the goal crease.

Goal areas

In each half of the field a line is marked from sideline to sideline between the goal line and centre line, 18m from the goal line. These lines are goal area lines. The area between the goal area lines and the end lines at each end of the field are goal areas.

Wing areas

Wing lines are lines parallel to the side lines. These lines are marked on each side of the field, 18m from the centre of the field and extend 12.5m on each side of the centre line.

The areas between the wing area lines and the side lines, and confined within the extremities of the wing area lines, but excluding those lines, are designated the wing areas.

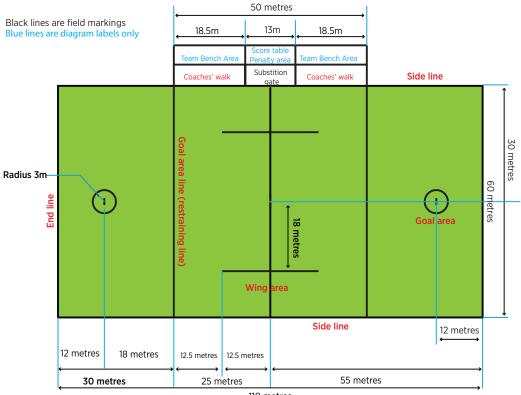
Centre

The centre of the field is marked with an X equidistant from each side line. It can also be marked by a 10cm square in a colour different than the centre line.

Special substitution area

The special substitution area is two lines marked on the same side of the field as the timer's table.

These lines are 9m long and extend away from the field of play at right angles to the sideline from points on the sideline 6.5m from the centre line. These lines are called the special substitution area lines.



Women's lacrosse

Playing area

The playing area is marked with a solid lined rectangular boundary, 91.4m to 110m long between end lines and 55m to 60m wide between side lines.

Four cones are used to mark the corners of the field. All field marking lines are 5.1cm wide. It is recommended that all lines are painted white.

There is 4m between the team bench boundary and the scorer's table. There is a 2m safety zone beyond the opposite sideline and spectators. There is 2m to 4m of space beyond the end line boundaries and any natural or artificial objects, such as trees, bushes, athletic tracks, fences, spectators, or stands.

Spectators must stay back at least 4m from the side lines and are not allowed directly behind the team benches or score table. Spectators are not allowed behind the end lines unless permanent seating is available.

A goal line is marked at each end of the field. The goal lines are no less than 82m apart. The goal lines are marked parallel to the end lines. There is 12m of playing space behind each goal line running the full width of the field. This is measured from the back, outside edge of the goal line to the front, inside edge of the end line.

Two small circles 15cm in diameter are located behind each goal, 4m in from the boundary and 11m from the centre of the goal line.

Around each goal line, a goal is circle marked. It has a radius of 3m measured from the centre back edge of the goal line to the outside edge of the goal circle.

Restraining lines are marked at each end of the field, 25m from each goal line. These solid lines extend across the width of the field. The 25m is measured from the back edge of the goal line to the front/midfield edge of the restraining line.

In the centre of the field, a centre circle is marked. Its radius is 9m when measured from the centre of the circle to its outside edge. Through the centre of this circle, a centre line 3m in length is marked parallel to the goal lines.

The scorer and timer table is located at the midfield in a marked 5m x 5m box set 4m outside the boundary on the teams' bench side of the field.

Each team's substitution area is 4m x 5m, marked by two cones or markers placed 4m apart and even with the scorer and timer's table extended.

The team bench areas are 18.5m long and 5m deep.

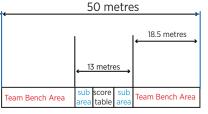
Goals

A goal cage consists of two vertical posts or pipes joined at the top by a rigid crossbar. The posts or pipes are 1.83m apart and the top horizontal crossbar is 1.83m from the ground.

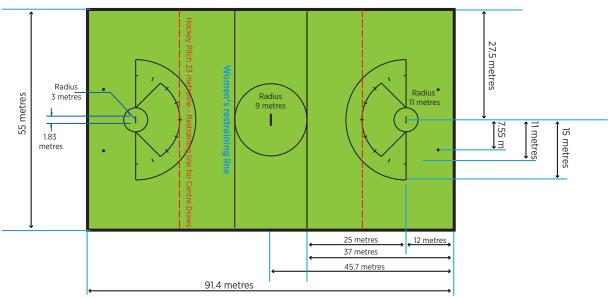
All measurements are inside measurements. The goal posts or pipes and crossbar are 5.1cm square or 5.1cm in diameter and are silver or painted white or orange.

The goal net is securely attached to the posts or pipes, the crossbar and to a point on the ground 2.1m behind the centre of the goal line.

The goal line is drawn between the two goal post or pipes and is continuous with them and the same width as the goal posts or pipes, 5.1cm.



Black lines are field markings Blue lines are diagram labels only



Unified lacrosse

For many years, at the international competition level, men's and women's lacrosse has been played with different field dimensions and field markings. With many new countries introducing the sport of lacrosse, the FIL, has established a set of common perimeter and bench markings, in the hope of making as many of the field dimensions similar so they are more easily implemented throughout the world.

Benefits

The benefits in having a common lacrosse field for both men's and women's field lacrosse include:

- Increased chance of having permanent lines included in synthetic surfaces.
- Reduced time required to mark both a men's and women's field.
- Less confusion regarding what line is used for what game.
- Alignment with other field sports where field markings are the same.
- Fields can be more easily shared by both men' and women's teams
- Goals can be permanent on grass fields and not have to move for each game
- Increasing potential for inclusion of lacrosse in the Olympics.

Implementation schedule

The following implementation schedule has been established for the unified field:

FIL International events

- 2015 U19 Women's World Championship – unified dimensions.
- 2016 U19 Men's World Championship – traditional dimensions.
- 2017 Women's World Cup unified dimensions.
- 2018 Men's World Championship unified dimensions.
- 2019 and beyond unified dimensions.

Summary of changes

Men

- Size of field increased to 110m x 60m.
- Goal crease radius increased to 3m.
- Space behind goal reduced to 12m
- Measurements have been adjusted to metric.
- Additional field length is added to the centre of the field between the two restraining lines and the additional width is added between the wing lines and the side lines.

Women

- Field size reduced to 110m x 60m.
- · Restraining line reduced to 25m.
- Space behind goal reduced to 12m
- Team bench area reduced to 18.5m.

References

Federation of International Lacrosse 2015-2016 Rules fo Men's Field Lacrosse. http://filacrosse.com/ Federation of International Lacrosse. 2015-2018 Women's Official Rules August 2014...http://filacrosse.com/

Location of markings for the Womens Game. Common Field Markings for Men's and Women's Lacrosse. Implementation Plan.

Netball

Playing court

A netball court is 30.5m long and 15.25m wide. The longer sides are called the side lines and the shorter sides the goal lines.

The court is divided into three equal parts, a centre third and two goal thirds. These sections are marked by two transverse lines parallel to the goal lines. Each third measures 10.167m wide.

The goal circle is a semi-circle 4.9m in radius and its centre is the midpoint of the goal line.

The centre circle is 0.9m in diameter and is marked in the centre of the court.

All lines are part of the court and 50mm wide, preferably white. It is recommended that they are a textured, water-based acrylic, straight and have clean, crisp edges.

Gradient

For outdoor courts the gradient is a 1% cross fall in both directions or a 1% fall diagonally on one single constant plane.

Indoor courts are a flat surface without a gradient change.

Run-off

The minimum run-off on all side lines and baselines is 3.05m. Where there are multiple courts, the run-off is 3.65m between courts.

Run-off zones are free of all obstacles and the same surface type and level as the court.

Goals posts

The goal posts are round, 3.05m high and placed at the midpoint of each goal line. The diameter of the goal posts is 65mm-100mm in diameter and inserted into the ground or sleeved beneath the floor. The goal post is placed so that the back of the goal post is outside of the goal line.

The ring is 380mm in diameter and fitted with a net. The ring itself is 15mm thick and has a 150mm length connection to the post. The net is white cotton mesh or chain mesh, open at both ends. Both ring and net are part of the goal post.

Netta

Netta is a modified game of netball for 8–10 year olds. It is played on a standard netball court and the goal posts are 2.4m high.

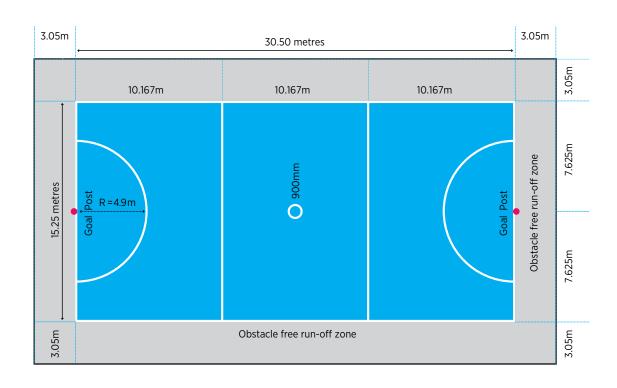
References

Netball Australia Netta Netball Rules. Fact Sheet CN207. www.netball.com.au

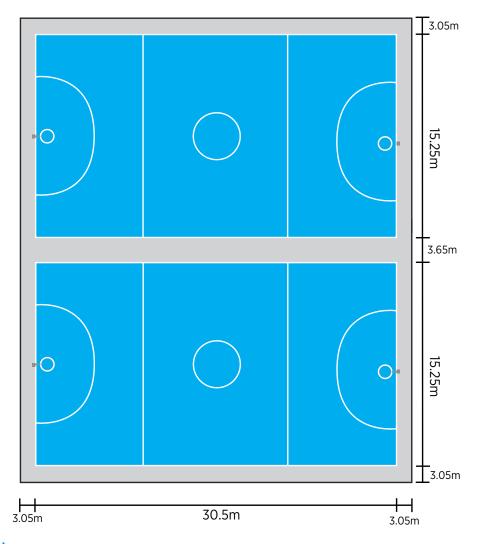
Official Rules of Netball. Netball Australia. Melbourne Vic. (As amended 2012)

Netball Court Planning Guide. Sport and Recreation Victoria 2008. http://www.sport.vic.gov.au/sites/default/files/Netball-Court-Planning-Amend-Jan2011.pdf

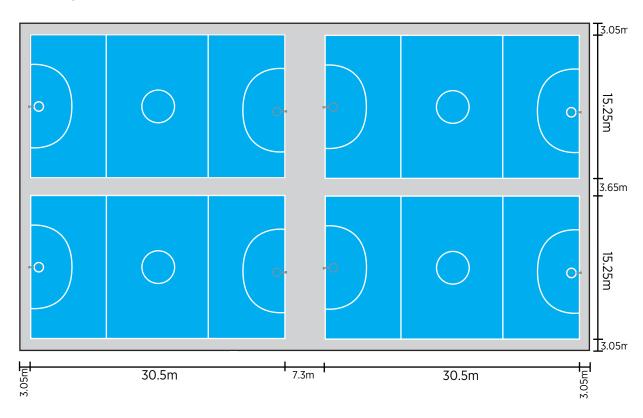
Single court layout



Netball double court layout



Netball four court layout



Polo

Field of play

The full size playing area is 274m in length (goal posts to goal posts) by 183m in width if unboarded and 146m if boarded. The minimum length is 229m.

The goal posts are 7.3m apart (inside measurement) and can be widened to 14.6m to decide a tie. The goal posts are 3m high and light enough to give way if collided with.

The boards are 28cm high and may be curved at both ends.

The field is marked at the centre with a T and at all boundaries where there are not side boards and at the edges and centre of the 30, 40 and 60 yard lines at each end of the field.

Safety zone

It is recommended that the run-off area extends 9m beyond the boards or sidelines and 27.5m beyond the back line.

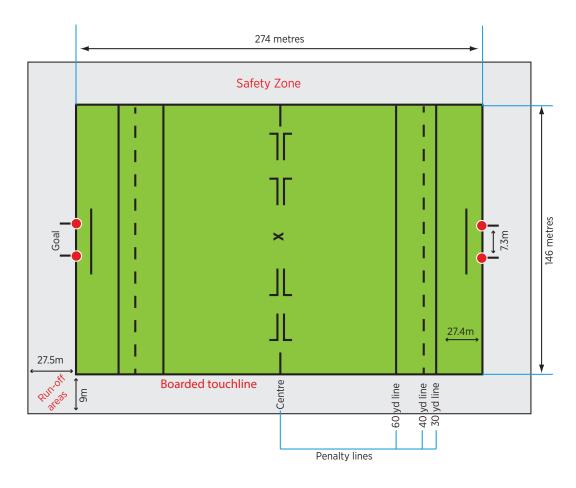
Markings

Broken lines or full marking may be used across the grounds. Marks on the boards or flags (clear of the safety zone) are useful as a guide to the umpires. Two short lines at right angles to the 60 yard line are drawn 40 yards 36.5 metres out from the centre of the goal. A line of tees approximately two foot apart clear of the centre spot are marked on the centre line. A double tee will help keep teams apart at the throw in. These are 0.61m apart. A line of 45.7m in length is drawn on the end safety zone about 18m from the back line as shown behind which the goal judges should stand.

Boards

Boards keep the ball in play, allow the ground to be narrowed and spread the game more evenly across the field. They should not exceed 28 cm in height and are made of treated timber at least one inch thick. A metal peg is inserted down the middle to secure them to the ground. They are tongue and grooved at the ends or joined by a metal plate. A board should be easily replaceable during a match if damaged. A triangular arris rail (10cm x 5cm) may be fitted at the base of the board to deflect the ball back into play.

Boards must be inspected regularly to ensure that pins are not proud on the top, the metal plates are flush with the surface and there are no splinters to injure ponies.



References

Australian Rules of Polo as adopted by the Australian Polo Federation. Windsor NSW. June 2015. http://www.australianpolo.com.au/Assets/Pages/88/APF_Rules_of_Polo_RPJUN15-11.pdf International Rules for Polo August 2010. Federation of international polo.

Polocrosse

Standard polocrosse field

The standard size of a polocrosse field is 146.5m long and 55m wide.

The goal scoring area is 27.5m long.

The centre area is 91.5 long.

The radius of the goal circle is 10m.

Goals

The goal posts are a minimum of 3m high and are 2.5m apart and flexible enough to be pushed over if collided with. Support posts of any kind are not be used. Drop-in goal posts are the preferred option.

Safety zones

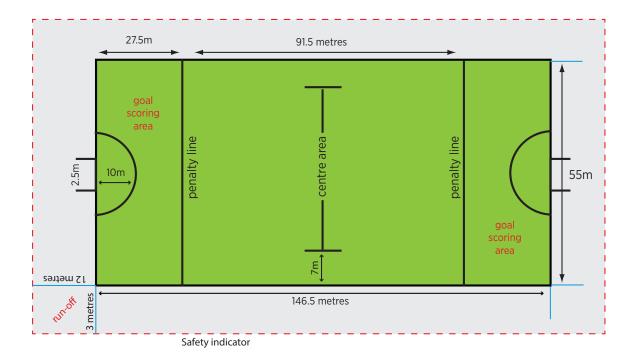
The run-off area measured from the sidelines is a minimum of 3m. At the end of the field it is a 12m clearance.

If more than one field, the clearance between fields is a minimum of 10m and the clearance end to end is a minimum of 24m.

All lines are clearly marked and defined so they can be seen by all players and umpires. Boundary and penalty lines are marked with suitable flexible markers situated 3m out from the side lines.

References

Polocrosse Rules and Information on the Game. Polocrosse Australia 2014. www.polocrosse.org.au



Roller sports

Roller sports includes disciplines of inline hockey, artistic skating, speed skating, roller hockey, roller derby, skateboarding and rolling (aggressive inline).

Roller inline hockey

Playing rink

Roller inline hockey is played on sport tile, wood, asphalt or cement.

The recommended size of the rink is 50m x 24m, however surface dimensions can vary between 40m and 60m in length and 20m and 30m in width. Where possible the width versus length ratio is 1:2.

A centre red line 5cm wide is marked on the floor to separate the defending zone and the attacking zone.

There are no other line markings required on the playing surface for roller inline hockey.

The rink is surrounded by a wood or fibreglass wall (boards) that extend above the rink surface from 101cm to 122cm high.

The recommended height is 107cm. The barrier has rounded corners with a radius of 5m to facilitate keeping the puck in play.

Goal crease

A goal crease area is marked in front of each goal by a red line 5cm wide. This line is 1.2m long and extends at a right angle from a point on the goal line, 30cm from the outside of each goal post. A line parallel to the goal line joins the ends of these two lines.

Goal cages

The goal cage is an iron pipe cage with a rectangular face opening with an inside height of 105cm and inside width of 170cm. The goal cages are located at opposite ends of the rink. The distance from the goal line to the end of the rink is 3.8m.

Face-off sports and circles

The rink is marked with five face-off circles with lines 5cm wide.

One face-off spot, 22.5cm in diameter, is in the centre of the floor, surrounded by a 3m radius circle

In each end zone, two 22.5cm faceoff spots are placed 6.1m out from each goal line and 6.7m from the exact centre of the rink's width. This makes the spots 13.4m apart from each other. A 3m radius circle is drawn around each spot.

Referee's crease

A 3m radius semi-circle is marked immediately in front of the timekeepers bench. Players are restricted from entering this area during stoppage of play.

Player benches

Each players bench accommodates at least 16 persons and is placed alongside the playing surface as close to the centre of the rink as possible and convenient to the dressing rooms.

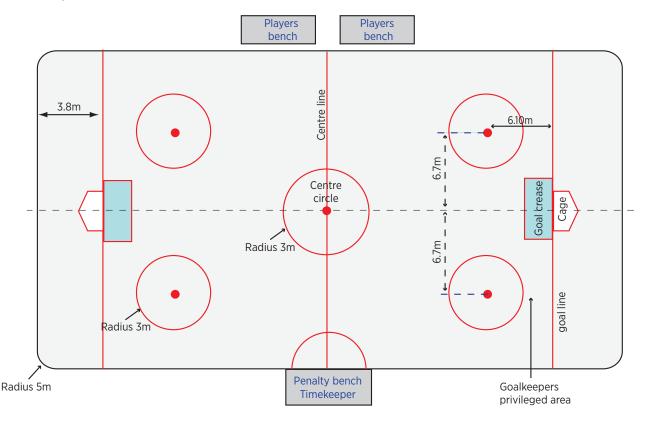
Penalty bench

The penalty bench is located at a substantial distance from the players benches, preferably on the opposite side of the rink.

References

Inline Hockey Australia 2014 Playing Rules. 2014 Edition. http://www.ilha.org.au/resources.html

Inline hockey rink 50m x 25m



Artistic roller skating

Artistic roller skating is a fun, safe sport that is practised worldwide. There are four disciplines in artistic roller skating:

- Freeskating
- Dance skating
- Precision skating
- Figure skating

Roller rinks range in size from 2,500 square metres to 12,000 square metres, depending on what size community they're located in and what attractions they offer. The average skating surface is around 23m wide and 45m long. The minimum size of a skating surface for a world championship event is 25m x 50m.

Skate floors are made of hardwood, rollerboard (high density particle board), concrete and modular tiles.

Speed skating

There are three disciplines in speed skating.

Track racing

Indoor track racing takes place on an oval track measured out on a flat even skating surface.

Road racing.

Road races are run on varied surfaces. The minimum distance for a road circuit is 240m that must have a minimum width of 5m. The average road circuit is between 400m and 500m.

Banked track

The races are held on a 200m oval track, which is slightly banked at either end.

The track

A track is an outdoor or indoor facility with two straights of the same length and with two symmetrical bends having the same radius.

The length of the track is 200m and is measured on the inner edge. The inner edge is drawn with a white line of 5cm. The length is measured on the inner edge of this white line.

The length of the two straights is 57.84 % of the total length of the track. The length of the bends must represent 45 % of the total length of the track.

The track is 6m wide, measured from the inner edge of the track to the fence. The track surface is made of a smooth non-slip surface.

The finish line is 8m before the beginning of the bend and marked with a 5cm wide white line.

In the inner part of the track, there is a 50cm no-skating zone. The zone is marked with non-slip stripes spaced out every 10cm.

The track is enclosed by polycarbonate fencing, 120cm high and has a safeguard panel of 20cm high and 3cm wide, detached 2cm from the ground.

Road course

The road course is a minimum of 8m wide at any point in the course. The surface is uniform and smooth without hollows and fissures. Safety devices are installed at points which the Chief Referee considers dangerous.

Closed circuit road race course

A closed circuit road course consists of an closed circuit where skaters cover one of more times according to the distance of the event.

The course is a minimum of 400m and a maximum of 600m long. The marathon course (42.19km) is at least 3km.

Open road race course

Skaters do not have to complete several laps to cover the distance of the race. All holes or excavations must be filled and or signalled with white paint. For races over 20km a drinks stand must be provided at the middle of the course.

Roller hockey

Roller hockey, also known as rink hockey, is played using traditional quad roller skates, as opposed to inline hockey that uses inline skates. Matches are played on indoor or outdoor rinks, in most weather conditions, by day or night, with natural or artificial light.

Rink

The rink has a polished wooden surface, but any flat, non-abrasive and non-slip material such as treated cement is acceptable.

There are three standard sizes:

- Minimum of 34m x 17m.
- Average of 40m x 20m.
- Maximum of 44m x 22m.

or any size between the minimum and maximum values that has a 2:1 size ratio with a 10% margin of error.

The rink is surrounded on all sides by a closed barrier, one metre high, and has four semi-circular corners, with a radius between one and 3m.

Markings

All markings are 8cm wide and a contrast with the colour of the ball and surface of the rink.

The penalty area is a rectangle marked on each side of the rink—two 9m lines parallel to the end boards and two 5.4m line parallel to the side boards.

The goal line is between the two posts of the goal cage. It is 1.70m long and marked at distance of 2.7m to 3.3m from the end boards.

The goal keeper's protection area is half-circle drawn from post to post, the centre is the middle of the goal line of each goal cage.

The penalty spot is a 10cm in diameter circle marked on the front line of each penalty area, at a distance of 5.4m perpendicular on the centre of the goal line.

Direct free hit marks are 10cm in diameter circles, marked on each half of the rink, at a distance of 7.4m perpendicular on the centre of the goal line. The half way link divides the rink into two player zones—the defensive zone and the attacking zone.

The 3m in diameter centre circle is marked in the centre of the rink

Goals

The rink hockey goal cage consists of a frame of hollow galvanised standard iron tube, made of three distinct parts welded together and painted fluorescent orange. The distance from the floor to the inner edge of the crossbar is one metre and the distance between the inner edges of the goal posts is 1.7m. The lower rear structure, painted white, is composed of a semi-circular arch connected by a horizontal bar. The upper rear structure, painted in white, is composed of a rectangle with a semi-arch. The semi-arch is welded to the rear corners of the rectangle.

The rear structure of the cage is covered with a white net, mesh size 25mm x 25mm. A second white netting is suspended on the inside of the cage to stop the ball bouncing back out of the cage.

Roller derby

The track

The track surface is polished or painted concrete, wood or game court floors. The track including the safety lane outside the track is 26.82m to 32.92m long and 16.76 to 22.86m wide.

The skating surface and boundary line colours contrast with the colour of the surface so they stand out. The track boundaries are 0.64m to 5cm high and highly visible to skaters. The boundary line width is 2.54cm to 7.5cm.

The track shows the pivot and jammer lines. They are both on the same straight, with the pivot line 9.15m counter clockwise from the jammer line. Both lines are 2.54cm to 7.5cm wide.

There is a 3m safety zone clearance around the outside of the track. If there is a rail, wall or barrier between the track and the audience, a 1.5m clearance is allowed.

References

Skate Australia Speed Australian Speed Rule Book for Indoor Flat Track. 17 November 2008. http://skateaustralia.org.au/

Federation Internationale Roller Sports. Speed Technical Committee Regulations 1/5 /2015. www.rollersports.org

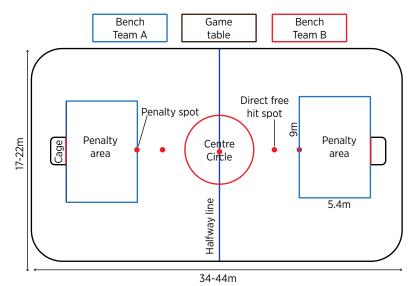
Rules of Rink Hockey 2011.

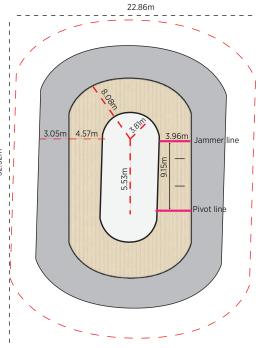
Comite International de Rink-Hockey. Federation Internationale Roller Sports.

2014 Women's Flat Track Derby Association WFTDA Rules of Flat Track Roller Derby. WFTDA Track layout quide.

Roller derby rink

Roller hockey rink





Rugby league

These guidelines cover the official markings and dimensions of the playing surface for NRL competition matches.

Dimensions of playing field

The playing field is 68m wide and 100m long from goal line to goal line. The in-goals areas measure 68m x 8m.

The touch lines are in touch, the touch in-goal lines are touch in-goal, the goal lines are in the in-goal area and the dead ball line is beyond in-goal.

The goals posts are 16m high and 5.5m apart. It is recommended that the bottom two metres of each upright be padded.

Markings

All lines on the field are 15cm wide unless otherwise stated.

The arrows on the 10-20-30 and 40m marks face the nearest tryline only.

The 50m mark does not have an arrow.

Line markings

An unbroken red line marks the two 40m lines.

The following unbroken lines are white and 15cm wide:

- 10m, 20m and 30m lines.
- · Halfway line.
- · Try line.
- · Dead ball line.
- · Touch line.

The broken lines consist of marks or dots on the ground not more than 2m apart. All transverse lines are marked across the full width of the field.

Distance markings

The marks at the 10m, 20m, 30m, 40m and 50m are lines white in colour with a red outline and 2m high.

Scrum lines

Scrum lines are marked at 10m and 20m from the touch line. They are 10cm wide and white in colour.

Media line

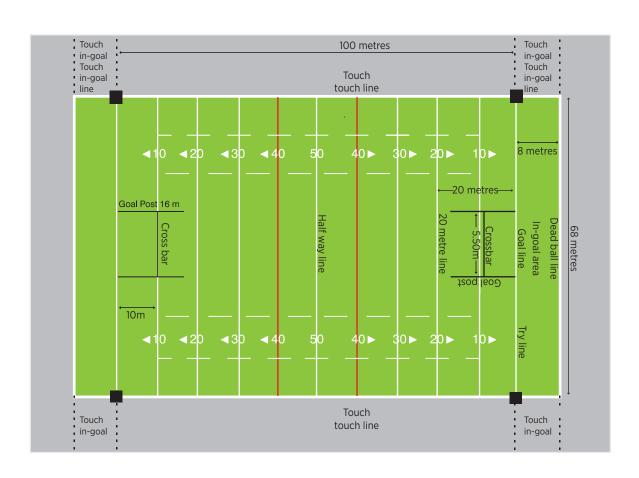
There is a media restraining line marked on either side of the field, 1.5m from the touch line. The line is 10cm wide and red in colour.

Scrum lines

Scrum lines are marked at both 10m and 20m in from touch line. These are to be 10cm in width and white in colour.

References

Rugby League Laws Of The Game. International Level with Notes On The Laws and NRL Telstra Premiership Interpretations (Approved by The Australian Rugby League Commission) Official February 2016, 2016 Edition. http://www.nrl.com/ Rugby League Laws of Mini Footy & Mod League. Twenty Ninth Edition 2015. Corcoran, Peter OAM. http://www.nrl.com/portals/nrl/RadEditor/ Documents/LawsofMiniMod2013.pdf



Mini footy

Mini footy is for all ages up to and including 8 years, with an option for 9 years if justifiable conditions exist.

Playing field

Overall dimensions

For 6, 7 and 8 years, the field measures 68m (width of regulation size field) by 30m (from 10m line to 40m line) of regulation field.

At nine years, the field may be enlarged to measure 68m x 40m.

The halfway line is part of the line stretching between the centres of the goal lines of the regulation field and across the mini field.

The quarterway is the line stretching from side to side of the mini field 20m from the touch line of the adult field, ie the 20m scrum line. The 10m and 5m lines are judged by the referee.

The touch in-goal line is 8m from the goal line (ie touch line of adult field).

Goal posts

The posts and crossbar are made of 50mm diameter PVC tubing. The crossbar measures 2m from the playing surface and 1.5m from the crossbar to the top of the goals. The crossbars are 3m wide between the goal posts.

Mod league

Mod League is a game of rugby league for 10-12 years (inclusive) with an option for 9 years if justifiable conditions exists.

Overall dimensions

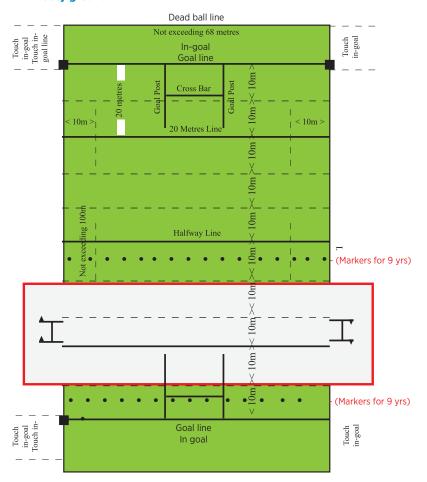
The playing field is 80m long and 48m wide. The boundaries are the 10m touch lines and goal lines from the regulation field.

Halfway is the halfway as marked on a regulation field.

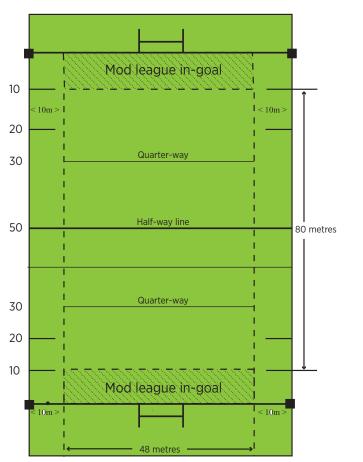
The in-goal is the area between the regulation field goal line and the line 10m from, and in front of, it. The touch in-goal lines are the portions of the two lines 10m from the regulation field's touch lines.

The goalposts are part of the dead ball line.

Mini footy ground



Mod footy ground



Rugby union

Regulation field

The ground

The field of play is the area between the goal lines and the touchlines. These lines are not part of the field of play.

The playing area is the field of play and the in-goal areas. The touchlines, touch-in-goal lines and dead ball lines are not part of the playing area.

The playing enclosure is the playing area and a space around it, not less than 5m where practicable, which is known as the perimeter area.

In-goal is the area between the goal line and the dead ball line, and between the touch-in-goal lines. It includes the goal line but it does not include the dead ball line or the touch-in-goal lines.

The 22 is the area between the goal line and the 22m line, including the 22m line but excluding the goal line.

Dimensions of the field of play

The field of play is no more than 100m long and 70m wide. Each ingoal is not longer than 22m.

The distance from the goal line to the dead ball line is not less than 10m.

The perimeter area or run-off is not less than 5m.

Line markings

Solid lines

The dead ball lines and touch-ingoal lines outside the in-goal areas.

The goal lines within the in-goal areas but outside the field of play

The 22-metre lines parallel to the goal lines.

The half way line parallel to the goal lines.

The touchlines which are outside the field of play.

Dash lines

All lines other than solid lines are dash lines 5m long.

There are two sets of dash lines called the 10m dash lines, which are 10m from and parallel to, each side of the half way line. The 10m dash lines intersect the dash lines which are 5m and 15m parallel to each touch line.

There are two sets of dash lines which are 5m from and parallel to, each touch line. These are the 5m dash lines.

They run from the 5m dash lines, which are parallel to each goal line and intersect both 22m lines, both 10m dash lines and the half way line.

There are two sets of dash lines which are 15m from and parallel to, each touch line. These are called the 15m dash lines. These dash lines run from the 5m dash lines which are parallel to each goal line, and intersect both 22m lines, both 10m dash lines and the halfway line.

There are six dash lines 5m from and parallel to, each goal line. Two dash lines are positioned 5m and 15m from each touch line. A further two dash lines are positioned in front of each goal post so that there is 5m between these dash lines.

Centre

There is one line 0.5 metre long that intersects the centre of the half way line.

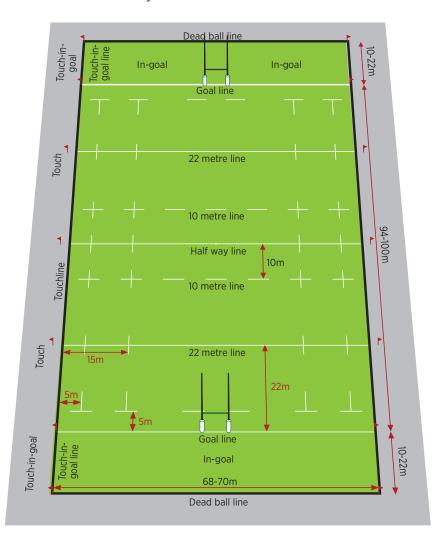
Goal posts and crossbar

The distance between the two goal posts is 5.6m.

The crossbar is placed between the two goal posts so that its top edge is 3.0m from the ground.

The minimum height of the goal posts is 3.4m.

When padding is attached to the goal posts the distance from the goal line to the external edge of the padding must not exceed 300mm.



Flag posts

There are 14 flag posts with flags. Each post is minimum of 1.2m above the ground.

Flag posts are positioned at the intersection of touch in-goal lines and the goal lines and at the intersection of the touch in-goal lines and the dead ball lines. These eight flag posts are outside the in-goal area and do not form part of the playing area.

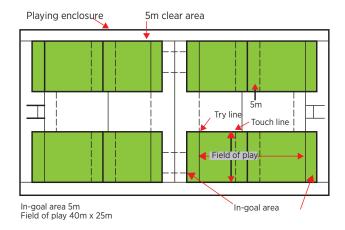
Flag posts must be positioned in line with the 22m lines and the half way line, 2m outside the touchlines and within the playing enclosure.

Junior rugby

Under 6 and Under 7

The maximum playing area is 50m long and 25m wide (quarter field). The field of play is a maximum of 40m long. Each in-goal is a maximum of 5m long.

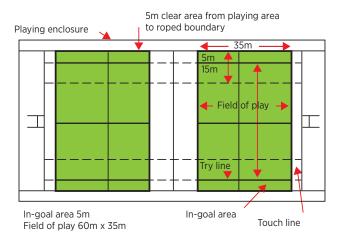
There is a 5m run-off from playing area to roped boundary.



Under 8 and Under 9

The maximum playing area is 70m long and 35m wide (half field). The field of play is a maximum of 60m long. Each in-goal is a maximum of 5m long.

There is a 5m run-off from playing area to roped boundary.



Under 10 and Under 11

The maximum playing area is 120m long and 60m wide (full field minus 10m width). The field of play is a maximum of 100m long. Each in-goal is a maximum of 10m long.

There is a 5m run-off from playing area to a roped boundary.



Field of play 100m x 60m In-goal area 10m

Under 12

The maximum playing area is 120m long and 60m wide (full field). The field of play is a maximum of 100m long. Each in-goal is a maximum of 10m long.

There is a 5m run-off from playing area to roped boundary.



Field of play 100m x 70m In-goal area 10m

References

Laws of the Game Rugby Union incorporating the playing charter 2015. Wordl Rugby. Dublin 2, Ireland. http://www.rugby.com.au/referees/Laws.aspx. Laws of the Game 2015 Kids Pathway U6 to U12. Australian Rugby 2015. http://www.rugby.com.au/Portals/22/2015%20Laws/ARU%20Kids%20Rugby%20Laws%202015.pdf

Shooting

The International Shooting Sport Federation (ISSF) is recognised by the International Olympic Committee as the sole controlling body of International Amateur Shooting Sports at international and worldwide levels of competition.

The ISSF controls the technical regulations in all the target shooting disciplines including pistol, rifle, running target and shotgun.

Australian International Shooting Limited (AISL) is the peak body for target shooting sports in Australia and is affiliated to the ISSF.

The Olympic program of the shooting consists of 15 different events over three disciplines. These are rifles, pistols and shotguns. Other events not on the Olympic program are running target events and additional rifle and shotgun events.

Range standards for 300m, 50m, 25m, 10m rifle and pistol ranges

Outdoor ranges are constructed so that the sun is behind the shooter as much as possible during the day. There must be no shadows on the targets.

Ranges have a line of targets and firing line. The firing line is parallel to the line of targets.

Recommended features to be included in the design and construction of the range:

- If possible, the range is surrounded by walls for safety reasons.
- Transverse baffle systems to be provided between the firing line and line of targets to prevent accidental exit of unaimed shots.
- 50m and 25m are outdoors where possible, but can be indoors if required by legal or climatic conditions.
- 300m ranges are at a minimum 290m open to the sky.

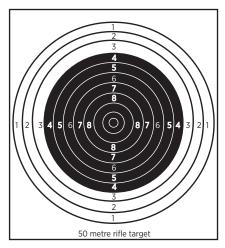
- 50m ranges are at a minimum 45m open to the sky.
- 25m ranges are at a minimum 12.5m open to the sky.

There must be sufficient space behind the firing points for the office and jury to perform their duties. A space must also be provided for spectators, separate to the athletes and officials, located at least 5m behind the firing line.

Each range is equipped with a large time clock at either end and clearly seen by athletes and officials.

Target frames or mechanisms are marked with numbers (starting from the left) corresponding to their firing point number. The numbers are alternating and in contrasting colours (required for 300m target numbers) and are clearly visible throughout the competition.

On 25m targets, each group of five targets are lettered, starting with the A group on the left. They are also individually numbered using numbers 11-20 for the targets in groups A and B, numbers 21-30 for groups C and D, etc.



Wind flags

Rectangular wind flags, which indicate air movements on the range, are placed at distances from the firing lines. The colour of the wind flags contrast with the background. Dual colour or striped wind flags are recommended.

Shooting distances

Shooting distances are measured from the firing line to the target face. Below is a table of shooting distances and allowable variations.

Distance	Variance
300m range	± 1.00m
50m range	± 0.20m
25m range	± 0.10m
10m range	± 0.05m
50m running target	± 0.20m
10m running target	± 0.05m

Target centre locations

Target centre locations are measured to the centre of the ten ring. All target centres within a group of targets or range have the same height (± 1cm).

Below is the recommended heights when measured from the firing point floor.

Range	Standard height	Variation allowed
300m	3.00m	± 4.00m
50m	0.75m	± 0.50m
25m	1.40m	± 0.10- 0.20m
10m	1.40m	± 0.05m
50m running target	1.40m	± 0.20m
10m running target	1.40m	± 0.05m

Firing point standards for rifle and pistol ranges

The firing point is stable, rigid and constructed so that it does not vibrate or move. From the firing line to approximately 1.20m rearward, the firing point is level in all directions. The remainder of the firing point is level or slopes to the rear with a few centimetres drop.

Range standards for running target ranges

The range is arranged so that the target runs horizontally in both directions across an open area at a constant speed. This area is called the opening. The movement of the target across the opening is called a run.

The protective walls on both sides of the opening are high enough so that no part of the target is visible until it reaches the opening. The edges are marked with a colour different from the target.

Ranges are constructed to prevent any person from being exposed to danger during shooting.

The shooting station is arranged so that the athlete is visible to spectators. It can be protected from the weather as long as the athlete is still visible to the spectators.

The 50m running target depicts a running wild boar with scoring rings printed on the shoulder. The animal is printed on a rectangular shaped target paper. Targets are printed in one colour only and show the animal running in left and right directions. Trimming the frame to the shape of the animal is not permitted.

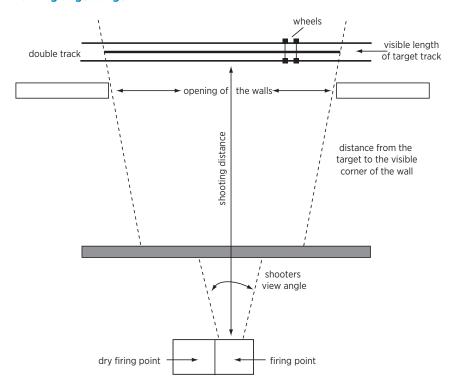
General standards for trap ranges

Trap pit

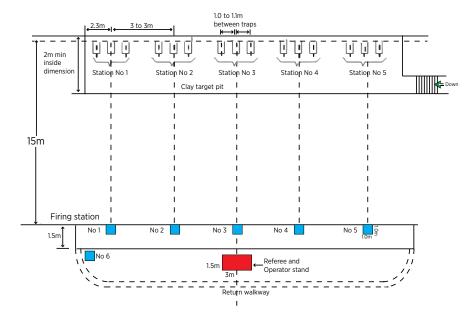
The trap pit is constructed so that the upper surface of the roof is on the same elevation as the surface of the shooting stations. Interior measurements of the trap pit are approximately 20m from end to end, 2m from front to rear and 2m to 2.1m from the floor to the under side of the roof.

These dimensions will allow freedom of movement for working personnel and sufficient storage space for targets.

Running target range



Trap range



General standards for shotgun ranges

Ranges in the northern hemisphere are laid out so shooting is toward a north to north easterly direction. Ranges in the southern hemisphere are laid out so shooting is toward a south to south easterly direction. These arrangements place the sun to the back of the athlete and on the target as much as possible.

Where possible shotgun ranges are constructed with a level shot fall zone that is free of obstacles. This permits the mechanical salvage and the recovery of lead pellets. Net systems may also be installed to capture lead pellets.

General standards for skeet ranges

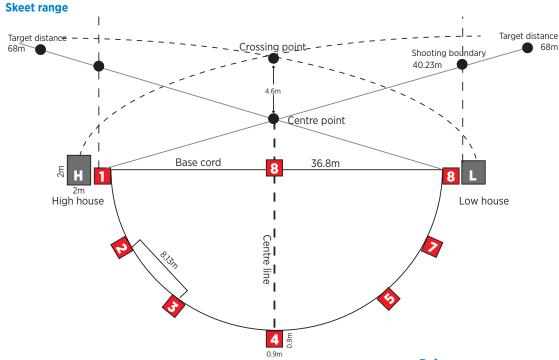
A skeet field consists of two houses (high house and low house) and eight shooting stations. Stations 1 through 7 are arranged on a segment of a circle with a 19.2m radius and a base chord of 36.8m. This is 5.5m from the centre point of the circle which is marked by a stake.

- The centre of the circle also marks the base of the target crossing point.
- Station 1 is located at the left end of the base chord.
- Station 7 at the right end when standing anywhere on the segment of the circle and facing the centre stake.
- Stations 2 through 6 are located on the segment of the circle at points equidistant from each other.
- Station 8 is located at the centre of the base chord.
- Shooting stations 1 through 7 are 0.9m square.
- Shooting station 8 is rectangular, 0.9m wide by 1.85m long, with its long sides parallel to the base chord.
- The markers for shooting stations 1 through 7 are on the centre of the side nearest the target crossing point. The marker for shooting station 8 is on the centre point of the base chord.
- All eight shooting stations are on the same level.

General and administrative facilities

The following facilities are provided on or near shooting ranges:

- Athletes' areas where athletes may relax, change clothes etc.
- Changerooms near the finals and qualification ranges.
- Meeting rooms for use by officials, committees and juries.
- Rooms for offices, target scoring, production of results and storage of targets and related material.
- A main scoreboard for posting official results and notices and smaller scoreboards on each range for posting preliminary results.
- An area for secure arms storage.
- An arms and equipment control area, with changerooms.
- A gunsmith's shop with suitable work benches and vices.
- Adequate toilet facilities.
- Wireless Internet and email communication services.
- · Internet services for operations.



References

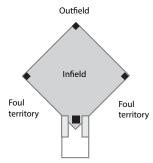
International Shooting Sport Federation. Edition 2013 (Third Print 01/2015. Effective 1 January 2013). Section General Technical Rules. page 201. http://www.issf-sports.org/documents/rules/2013/ISSFRuleBook2013-3rdPrint-ENG.pdf

Softball

Softball has two main disciplines, fastpitch and slowpitch. Fastpitch is played in local, state, national and international competitions. Slowpitch, which is also played competitively, is very popular as a recreational or social sport.

The playing field

The playing field is divided into fair territory and foul territory. Fair territory is further divided into the infield and the outfield and territory beyond the outfield fence.



Infield

The infield is a square called a diamond. There is a base at each corner: first base, second base, third base and home plate. The pitching distance is measured from the rear point of the home plate to the front edge of the pitchers plate.

Outfield

The outfield is a grassed area beyond the infield and extends the entire width of the field and to the outfield fence. The table below outlines the distances relevant to the competition.

Playing field layout and dimensions

Below is a table outlining the international standard distances. They are measured from the rear point of home plate to the first base and the front edge of the pitchers plate.

Division	Age group	Bases	Pitching	Outfield fence
Adult				
Fastpitch	Men	18.29m	14.02m	76.20m
Fastpitch	Women	18.29m	13.11m	67.06m
Slowpitch	Men	19.81m	15.24m	91.44m
Slowpitch	Women	19.81m	15.24m	83.82m
Slowpitch	Co-ed	19.81m	15.24m	83.82m

Division	Age group	Bases	Pitching	Outfield fence
Youth				
Fastpitch	U19 Women	18.29m	13.11m	67.06m
Fastpitch	U19 Men	18.29m	14.02m	76.20m
Fastpitch	U16 Women	18.29m	12.19m	67.06m
Fastpitch	U16 Men	18.29m	14.02m	76.20m
Slowpitch	U19 Women	19.81m	15.24m	80.77m
Slowpitch	U19 Men	19.81m	15.24m	91.44m
Slowpitch	U16 Women	19.81m	14.02m	80.77m
Slowpitch	U16 Men	19.81m	14.02m	91.44m

School age programs

The following table is suggested distances for younger aged children

Age	Pitching	Bases
6 and under	T-ball	7.6m
8 and under	T-ball	13.7m
10 and under	10.66m	16.76m
12 and under	10.66m	18.28m
14 and under	12.9mm	18.28m

The minimum length of the baselines vary depending on the competition played. For fastpitch and slowpitch the baselines are 18.29m. In wheelchair softball the baselines are 15.24m.

Backstop

The backstop is the area behind the home plate.

Bases

At one corner of the diamond is the home plate with bases at each of the remaining corners. The bases are numbered counter clockwise as 1st base, 2nd base and 3rd base and securely fastened to the ground.

Each base is a 38.1cm square and made of a white material. First base is a double base—76.2cm x 38.1cm.

Home plate

Home plate is a five-sided piece of white rubber located between the two batter's boxes and the catcher's box.



Batters and catcher's box

The batter's boxes are the rectangular areas beside home plate and the catcher's box is behind home plate.

Coaches box

A coaches box is located in foul territory outside both baselines.

Foul lines

The two foul lines meet at a right angle at home plate. These lines and the fence running between the baselines defines the limits of the field.

Pitching circle

The pitching circle surrounds the pitching rubber.

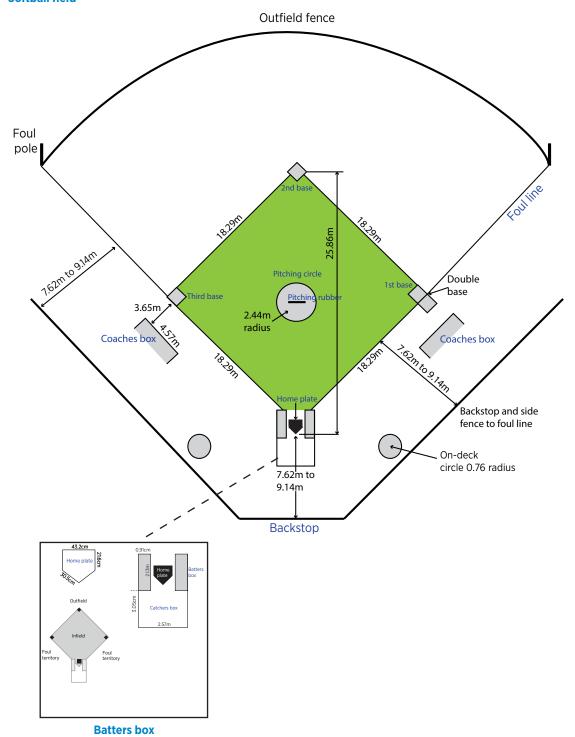
Pitching rubber

The pitching rubber is located at the centre of the diamond. It is 61cm wide and 15.3cm deep.

References

Softball Field Guidelines. Updated January 2015. Softball Australia. www.softball.org.au

Softball field



Squash

A squash court is a rectangular box with four vertical walls of varying height. These walls are known as the front wall, side walls and back wall. The front wall line, side wall line, back wall line and upper 50mm of the tin are shaped to deflect any ball that strikes them.

The court has a level floor and a clear height above the court area.

The length, width and diagonal of the court are measured at a height of 10cm above the floor.

Squash courts are also used for racquetball

Single squash court

Dimensions

The dimensions of a single squash court are:

Dimension	Unit
Length of court	9.75m
Width of court	6.4m
Diagonal	11.66m
Height from floor to lower edge of front wall line	4.57m
Height from floor to lower edge of back wall line	2.13m
Height from floor to lower edge of service line on front wall	1.78m
Height from floor to top of the tin	4.8m
Distance to nearest edge of short line from back wall	4.26m
Dimensions of service boxes	1.6m square
Width of all lines and upper section of tin	50mm
Minimum clear height above court floor	5.64m

Floor

The floor is a hard smooth surface with limited spring. It has a matt finish and is generally a natural wood colour.

Front wall

The three horizontal markings on the front wall are the front wall line, the service line and the upper 50mm of the tin. All edges of the tin are rounded and the tin makes a distinctive noise when struck by the ball.

Back wall

The back wall line is the only horizontal court marking on the back wall.

Side walls

The side wall line is angled between the front wall line and the back wall line.

Floor markings

There is a short line, half court line and two service boxes marked on the floor.

The short line is parallel to the front and back walls of the court and is 4.26m.

The half court line is parallel to and equidistant from the side walls. It runs from the back wall to the short line.

There are two service boxes, one on each side of the court behind the short line. Each service box is bounded on three sides by lines and on the fourth side by one of the walls.

Door

The door to the court is located in the middle of the back wall and opens into the court. The door is no more than 900mm wide and 2130mm high.

Double squash court

Dimensions

The dimensions of a double squash court is the same as a single squash court except for the width of court which is 7.62m or 8.42m depending on the standard of competition.

The diagonal is increased to 12.375m.

Hardball doubles court

Dimensions

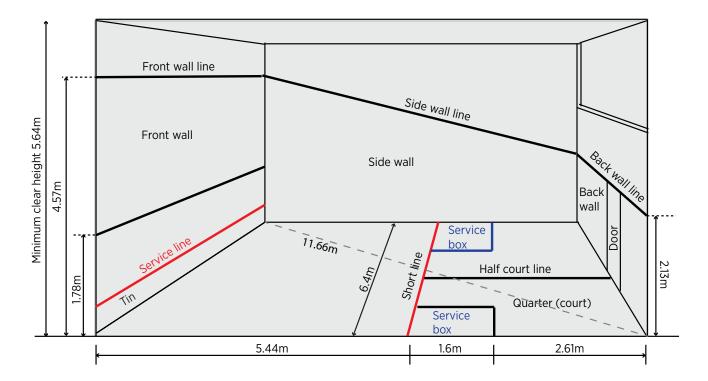
The dimensions of a hardball doubles court are:

Dimension	Unit
Length of court	13,716m
Width of court	7.62mm
Diagonal	15.69m
Height from floor to lower edge of front wall outline	6.09m
Height from floor to lower edge of back wall line	2.13m
Height from floor to upper edge of service line on front wall	2.46m
Height from floor to top of the tin	4.3m
Distance to nearest edge of short line from back wall	4.57m
Dimensions of quadrant service boxes	1.37m square
Width of all outlines and upper section of tin	38mm
Width of all other lines	25mm
Minimum clear height above court floor	7.31m

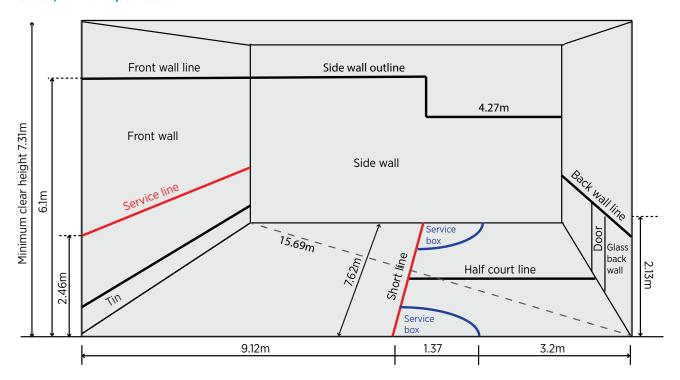
References

Specifications for Squash Courts 2013. World Squash Federation. Squash Australia. 1 June 2015. www.squash.org.au/sqaus/development/squash_ builders_specifications.htm

Singles squash court



Doubles/hardball squash court



Swimming

The Federation Internationale de Natation (FINA) is the world governing body for aquatic sports such as swimming, diving, waterpolo, synchronised and open water swimming.

FINA rules are used to manage state, national and international events such as the World Championships and the Olympics. The FINA Facilities Rules provide the best possible environment for competitive use and training.

Competition pools

Dimensions

Standard pools are either 25m or 50m long.

Depth

For pools with starting blocks, the minimum depth is 1.35m, extending to at least 6.0m. A minimum depth of 1.0 metre is required for pools without starting blocks.

Walls

The end walls are at right angles to the swimming course and surface of the water. They are made of a solid material, with a non-slip surface extending 0.8m below the water surface, to allow competitors to touch and push off in turning without hazard.

Rest ledges along the pool walls are permitted. They are located at least 1.2m below the water surface, and are up to 0.15m wide. Both internal and external ledges are acceptable, however internal ledges are preferred.

Gutters are placed on all four walls of the pool. If end wall gutters are installed, they must allow for attachment of touch panels to the required 0.3 metre above the water surface. They are covered with a suitable grill or screen.

Water temperature

The water temperature is between 25° and 28° celsuis. During competition the water is kept at a constant level, with very little movement. Inflow and outflow is allowed as long as no appreciable current or turbulence is created.

Lanes

According to FINA rules World Championships require 8 lanes and Olympic Games require 10 lanes. The lanes are a minimum of 2.5m wide, with two spaces of at least 2.5m wide outside of the first and last lanes.

Lane ropes

In an 8 lane pool, lane ropes extend the full length of the course and are secured at each end wall to anchor brackets recessed into the end walls. The anchors are positioned so that the floats at each end wall of the pool are on the surface of the water. Each lane rope consists of floats placed end to end. The floats have a minimum diameter of 0.10m-0.15 metre.

In a swimming pool the colour of the lane ropes is as follows:

- Two green ropes for lanes 1 and 8.
- Four blue ropes for lanes 2, 3, 6 and 7
- Three yellow ropes for lanes 4 and 5

The floats that extend for a distance of 5m from each end of the pool are red. At the 15m mark from each end wall of the pool the floats are distinct. In 50 metre pools the floats are distinct at 25m.

There is only one firmly stretched lane rope between each lane.

Starting platforms

Starting platforms are from 0.5m-0.75m high above the water surface. The surface area is at least 1.5m square and covered with a non-slip material. The maximum slope is 10 degrees. The platforms are firm and are without a springing effect.

Lane markings

The lane markings on the floor of the pool are a dark colour and marked in the centre of each lane.

The width of the marking is 0.2m-0.3m for all pools. The length for 50m pools is 46m and 21m for 25m pools.

Each lane line ends 2m from the end wall of the pool with a distinctive cross line 1m long and of the same width as the lane line. Target lines are marked on the end walls or on the touch panels in the centre of each lane and are the same width as the lane lines.

Leisure pools

A number of pool facilities include leisure water features that are designed for recreational swimmers, lap swimming and specific areas for toddlers and children. These may include:

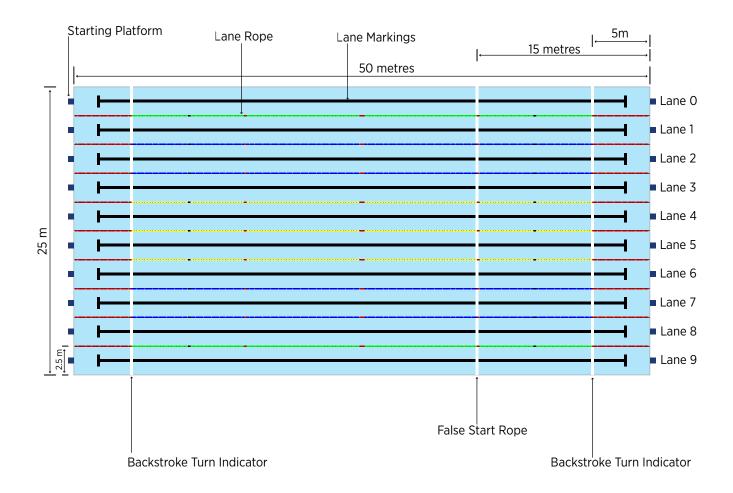
- Varying water depths, with extensive shallow or beach areas.
- Wave pools and surfing pools.
- · Water slides and flumes.
- Fast flowing river rides & rapids.
- · Water jets and water cannons.
- Water features eg rain showers.
- Spa facilities, including varying temperatures.

Further information is available in the Health (Aquatic Facilities) Regulations 2007 and the Code of Practice for the Design, Construction, Operation, Management and Maintenance of Aquatic Facilities.

www.slp.wa.gov.au/legislation/ statutes.nsf/main_mrtitle_2727_ homepage.html

The Code of Practice for the Design, Construction, Operation, Management & Maintenance of Aquatic Facilities 2013 www2.health.wa.gov.au/~/media/Files/Corporate/general%20 documents/water/PDF/CoP %20 for design operation mgt and maintennance aquatic facilities. ashx

50 metre swimming pool



References

FINA Facilities Rules. October 2015. Sport England Design Guidlance NoteAppendix 1 Pool types and technical design issues swimmingpools-2013-appendix-1.pdf. http://www.fina.org/ content/facilities-rules

Table tennis

The table

The upper surface of the table, known as the playing surface, is 2.74m long and 1.525m wide and is horizontal 76cm above the floor.

The playing surface does not include the vertical sides of the tabletop.

The playing surface yields a uniform bounce of about 23cm when a standard ball is dropped on to it from a height of 30cm.

The playing surface is a matte surface and dark coloured. There is a white side line, 2cm wide, along each 2.74m edge and a white end line, 2cm wide, along each 1.525m edge.

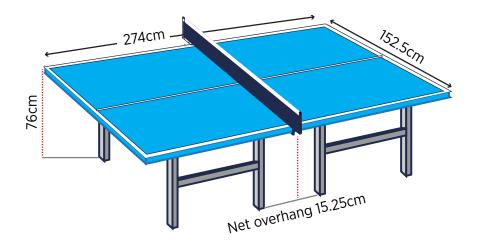
The playing surface is divided into two equal courts by a vertical net parallel to the end lines. For doubles, each court is divided into two equal half courts by a white centre line, 3mm wide, running parallel with the side lines. The centre line forms part of each right half court.

The net assembly

The net assembly includes the net, its suspension and the supporting posts, including the clamps attaching them to the table.

The net is suspended by a cord attached at each end to an upright post 15.25cm high. The outside limits of the post are 15.25cm outside the side line.

The top of the net is 15.25cm above the playing surface. The bottom of the net, along its whole length, is as close as possible to the playing surface. The ends of the net are attached to the supporting posts from top to bottom.



References

The Laws of Table Tennis. ITTF Handbook 2016. www.ittf.com/ittf_handbook/ittf_hb.html

Taekwondo

Competition area

The contest area is a flat, nonslip mat. The contest area can be installed on a platform 0.6m-1m high from the base.

The colour scheme of the mat's surface must avoid giving a harsh reflection, or tiring the contestant's or spectator's eyesight. The colour scheme is also appropriately matched to the contestant's equipment, uniform and the surface of the contest area.

There are two shapes used on competition. In both shapes the contest area and safety area are different colours.

Square shape

This competition area includes the contest area and safety area. The contest area is a 8m x 8m square and a safety area of 2m to 4m. The total size of the competition area which includes the contest area and safety area is 10m x 10m to a maximum of 12m x 12m.

Octagonal shape

The competition area is a minimum of 10m x 10m to a maximum of 12m x 12m. At the centre of the competition area is an octagonal shaped contest area. The contest area measures 8m in diameter and each side of the octagon is 3.3m long. Between the outer line of the competition area and boundary line of the contest area is the safety area.

Lines and positions

The outer line of the contest area is the boundary line and the outer lines of the competition area are called the outer lines.

The front outer line adjacent to the Recorder's Desk Outer Line 1 and clockwise from outer line 1, the other lines are called outer lines 2, 3 and 4. The boundary line adjacent to outer line 1 is called boundary line 1 and clockwise from boundary line 1, the other lines are boundary lines 2, 3 and 4.

In the octagonal shape contest area the boundary line adjacent to outer line 1 is called boundary line 1 and clockwise from boundary line 1, the other lines are boundary lines 2, 3, 4, 5, 6, 7 and 8.

At the start of the match the contestants are at two opposing points, 1m from the centre point of the contest area parallel to outer line 1. The referee is positioned at 1.5m from the centre of the contest area toward outer line 3.

The position of the 1st judge is 0.5m from the corner of the outer lines 1 and 2. The position of the 2nd judge is 0.5m outward from the centre of outer line 3. The position of the 3rd judge is 0.5 from the corner of the outer lines 1 and 4. The recorder and instant video replay jury (IVR) are located 2m from outer line 1.

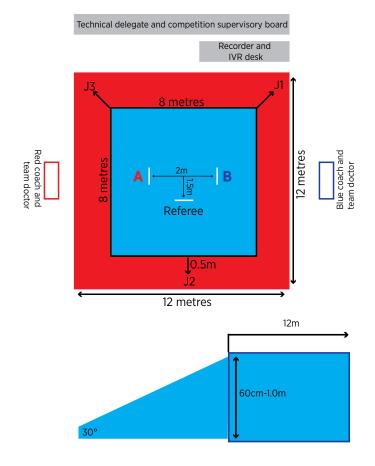
The coaches are positioned at a point 1m or more from the centre point of the outer line of each contestant's side.

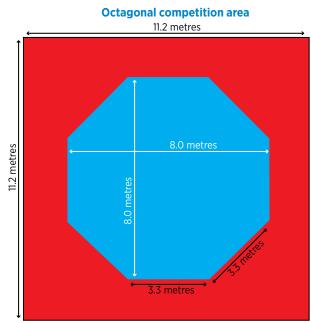
The inspection desk is near the entrance of the competition area for the inspection of the contestants' protective equipment.

References

World Taekwondo Ederation Competition Rules & Interpretation In force as of May 11, 2015. World Taekwondo Federation Seoul, Korea. June 2015.

$\label{eq:competition} \textbf{Square competition area and platform}$





Tennis

The dimensions of a singles and doubles tennis courts are defined in the Rules of Tennis by the International Tennis Federation (ITF). For practical purposes the vast majority of tennis courts are built to doubles dimensions, which allows for both singles and doubles.

The court

The court is 23.77m long and for singles matches, 8.23m wide. For doubles matches the court is 10.97m wide.

The court is divided into two equal areas by a net suspended by a cord or metal cable attached to two net posts. The net is 1.07m high and is fully extended to that it fills the space between the two nets posts. The net is 0.914m high at the centre, where is held down tightly by a white strap. A white band covers the cord or metal cable and the top of the net.

For doubles matches the centre of the net posts are 0.914m outside the doubles court on each side.

For singles matches the centres of the net posts are 0.914m outside the singles court on each side.

Playing area

The overall playing area including run-off depends on the type of event. A guide to minimum court area requirements (single courts) is outlined in the table below.

With indoor courts the recommended height measured at the net from the court surface to the ceiling is 9.14m.

Line markings

The lines at the end of the court are baselines and the lines at the sides of the court are side lines. The baseline is up to 10cm wide.

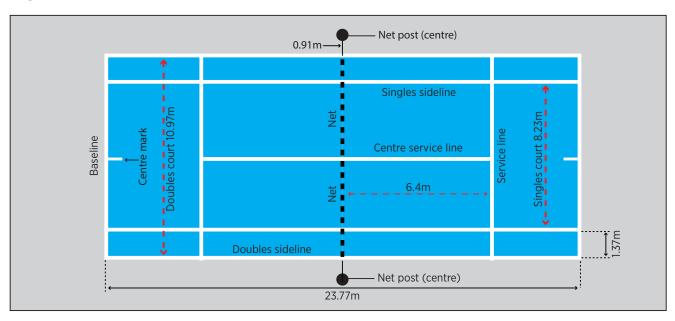
Service lines are two lines between the singles side lines, 6.40m from each side of the net, parallel with the net. On each side of the net the area between the service line and the net are divided into two equal parts called the service courts. The line dividing the service courts is the centre service line and is drawn parallel with the singles side lines and half way between them. The centre service line is 5cm wide.

All other lines on the court are between 2.5cm and 5cm wide.

All court measurements are made to the outside of the lines and are all the same colour, contrasting with the colour of the surface.

Court Dimensions	Club/ recreation	ITF (pro tour)	Stadium court
Total area	34.77m x 17.07m	36.6m x 18.3m	40.23m x 20.11m
Run-off back of court	5.48m	6.4m	8.23m
Run-off at side of court to fence	3.05m	3.66m	4.57m
Min distance between 2 courts (unfenced)	3.66m	5.48m	N/A
Recommended distance between two courts (unfenced)	4.27m	N/A	N/A

Singles and doubles tennis court



10 and under tennis

Tennis10s is tennis for players aged 10-and-under, played on smaller courts with slower Red, Orange and Green balls. It is a fun way to start tennis and makes it easy for children to play the game, develop good technique and tactics and a love for the sport.

As at 1 January 2012 all Tennis Australia sanctioned 10 and under competitions are played on approved smaller courts.

Tennis Australia recommends three different scaled court sizes that help kids progress at their own pace, preparing them to play on a full-size court. These are know as red courts, orange courts and green courts.

Court dimensions

Dimensions	Small	Large
Red court (stage 3)		
Length	8.23m	10.97m
Width	3.0m	6.0m
Net height	80cm*	80cm*
Orange court (stage 2)		
Length	18m	
Width	6.4m	
Net height	80-91.4cm	
Green court (stage 1 full size court)		
Length	23.77m	
Width	8.23m	
Net height	91.4cm	

Line markings

There are a variety of temporary or permanent options for marking lines for the red and orange courts on full sized tennis courts.

Throw-down lines

These are rubber or thermo plastic strips laid down on the court and can removed after each session.

Chalk

A mix of diluted chalk paint can be used to mark the temporary lines on both artificial clay and grass surfaces. Lime may be used to temporarily line red and orange courts on natural grass surfaces, but is not suitable for artificial grass courts.

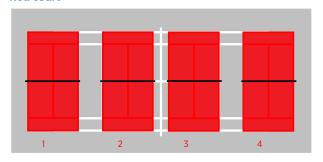
Strong tape

Something similar to painter's tape is semi-permanent and will last up to six months.

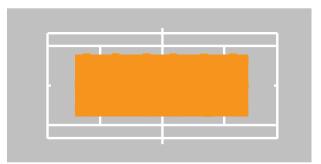
Permanent paint

Semi-permanent paint can be used on artificial clay and grass surfaces. When using permanent or semi-permanent lines, use a colour that is similar to the court surface so as not to distract players when using the full court.

Red court



Orange court



Beach tennis

The court is 16m long and for doubles matches, 8m wide and for singles matches, 4.5m wide.

The court is divided in the middle by a net suspended by a cord or metal cable attached to two net posts. The net is fully extended and is 1.7m high at all part of the net. A band covered the cord or metal cable and the top of the net.

The lines of the court are between 2.5cm and 5cm wide except for the baselines which are up to 10cm wide.

The lines at the ends of the courts are baselines and the lines at the sides are called side lines. The court boundaries are marked with a coloured boundary tape that contrasts with the colour of the surface and the court measurements are made to the outside of the tape.

Boundary tapes are produced specifically for beach sports and include rubber anchors or anchor plates to fix the tape to the sand.

Playing surface

The terrain is levelled sand, as flat and uniform as possible The surface is to be free of rocks, shell and other objects that could endanger or injure any of the players.

Junior beach tennis

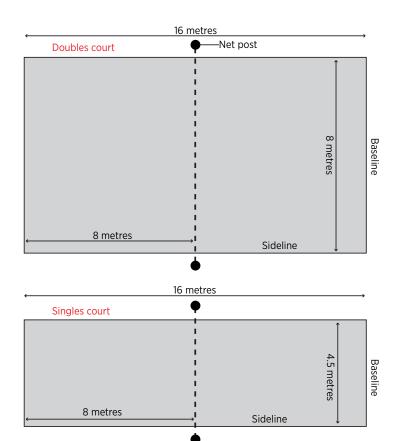
16 and under and 14 and under

The court is 16m long and 8m wide. The net is 1.7m high across the full width of the court.

12 and under beach tennis

The court is 14m long and 7m wide. The net is 1.5m high across the full width of the court.

Singles and doubles beach tennis courts



References

Tennis Australia. Court and Enclosure Dimensions. Court-and-Enclosure-Dimensions-2012.pdf
Tennis Australia. Courts, Nets and Side lines 10-and-Under Tennis Rules. www.tennis.com.au
ITF Rules of Tennis. International Tennis Federation 2015. Nassau, Bahamas. https://www.itftennis.com/home.aspx

Tennis play and Stay ITF Official Program http://www.tennisplayandstay.com/ media/124413/124413.pdf ITF Rules of Beach Tennis 2016

Touch football

Field of play

The field of play is the playing area bounded by the side lines and touchdown zone lines, both of which are out of bounds. The playing field is 70m long from scoreline to scoreline and 50m wide.

Side lines are the side boundaries of the field of play.

Scorelines are the lines separating the touchdown zone from the field of play.

The touchdown zone is the area bounded by the sideline, scoreline and touchdown zone line. The touchdown zone line is the line joining the side lines extending no less than 5m and not more than 10m past the scoreline.

The size of the playing field can be varied to suit local council requirements and conditions. At a minimum, it is essential that scorelines, side lines, touchdown zone lines (if utilised) and the halfway line are correctly marked.

The playing surface is normally grass. However other surfaces can be used if approved by Touch Football Australia.

Line markings

All line markings defining the field of play are a minimum of 2.5cm wide. The sides are extended at least 5m beyond the scorelines and joined by the touchdown zone lines.

The interchange areas are 20m long and a maximum of 5m wide. They are marked on both sides of the field of play. They extend 10m either side of the halfway line and 1m from the sideline.

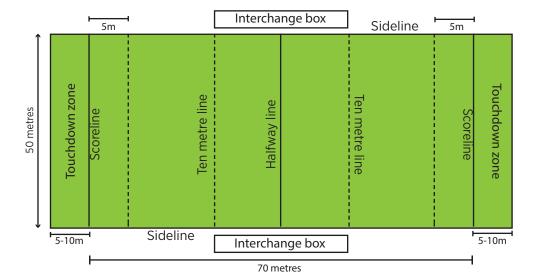
Interchange areas can be dispensed with if local conditions and ground area do not allow for them. They can be placed on the same side of the field and varied in length and width

Markers

Markers are positioned at the intersections of the side lines and scorelines and at the intersections of the halfway line with the side lines. They are a bright colour and made of a safe and pliable material.

References

Touch Football Australia Playing Rules and Referees Signals 7th Edition 2007. www.touchfootball.com.au



Volleyball

The international governing body for volleyball is Federation Internationale de Volleyball (FIVB) who provide the rules for the sport.

The sport has three disciplines:

- · Indoor volleyball.
- · Beach volleyball .
- · Indoor beach volleyball.

Indoor volleyball

The playing area

Dimensions

The playing court is 18m long and 9m wide and is surrounded by a free zone 3m wide on all sides.

The space above the playing area is known as the free playing space and is a minimum of 7m high from the playing surface.

For FIVB, world and official competitions, the free zone measures a minimum of 5m from the side lines and 8m from the ends lines. The free playing space is a minimum of 7m high from the playing surface.

Playing surface

The playing surface is flat and a light colour. For FIVB, world and official competitions, only a wooden or synthetic surface is allowed.

White colours are required for the lines. Other different colours are required for the playing court and free zone.

Line markings

All lines on the court are 5cm wide and are a light colour different from the colour of the floor.

The boundary lines are the two side lines and end lines. The centre line divides the playing court into two equal courts, 9m x 9m each. This line extends from beneath the net from sideline to sideline.

On each court the rear edge of the attack line is drawn 3m back from the middle of the centre line and marks the front zone.

Zones and areas

The front zone on each court is limited by the axis of the centre line and the rear edge of the attack line. The front zone extends beyond the side lines to the end of the free zone

The service zone is a 9m wide area behind each end line and extends to the end of the free zone. It is 15cm long and drawn 20cm behind the end line as an extension of the side lines.

The substitution zone extends from both attack lines to the scorer's table.

The Libero Replacement zone is part of the free zone on the same side as the team benches, extending from the attack line up to the end line.

A penalty area, 1m x 1m, is located in the control area outside of the endlines.

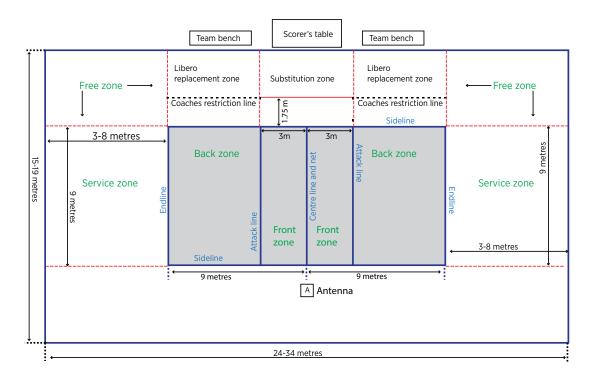
Nets and posts

The net is 2.43m high for men and 2.24m high for women. It is placed vertically over the centre line. It is 1m wide and 9.5m-10m long and is 10cm square black mesh.

The height of the net is measured from the centre of the playing court.

The antenna is a flexible rod, 1.8m long and 10mm in diameter and made of fibreglass or similar material. It is fastened on opposite sides of the net. The top of the antenna extends 80cm above the net and is marked with 10cm stripes of contrasting colour, usually red and white.

The 2.55m high posts are placed 0.50m-1.0m outside the side lines. The posts are rounded and fixed to the ground without wires.



Beach volleyball

Playing area

Dimensions

The court is 16m long, 8m wide and surrounded by a minimum 3m wide free zone on all sides.

The free playing space above the playing area is 7m high from the playing surface.

Surface

The surface consists of levelled sand, flat and uniform of possible, free of rocks, shells and anything else which represent risk of injuries to players.

Line markings

All lines are 5cm wide and coloured to contrast with the colour of the sand.

The boundary is marked by two side lines and two endlines. There is no centre line. Court lines are made of ribbons of a resistant material and any exposed anchors of a flexible material.

Zones and areas

There is a service zone and free zone surrounding the court. The service zone is an area 8m wide behind the end line which extends to the edge of the 3m wide free zone.

Nets and posts

The net is vertical over the middle of court. The top is set at 2.43m for men and 2.24m for women. For juniors the height of the net is as follows:

Age	Females/males
16 and under	2.24m
14 and under	2.12m
12 years and under	2.00m

The net is 8.5m long and 1m wide when it is taut. The mesh is 10cm square and at the top and bottom are two 7-10cm wide horizontal white bands.

Antennae

The antenna is fastened at the outer wide of each side band on the net. The top 80cm of each antenna extends above the net and is marked with 10cm strips of contrasting colour.

The posts are placed at a distance of 0.70-1m from each side line to the post padding. They are 2.55m high and fixed to the ground without wires. The posts must be padded.

Indoor beach volleyball

Indoor beach volleyball is a social/ participation game. It is played on a sand covered volleyball court surrounded by netting.

The playing area is 13m long and 9m wide and surrounded by nets. The height of the nets is 6m.

The terrain is levelled, washed sand, 300mm deep.

The centre net is a maximum of 2.35m high.

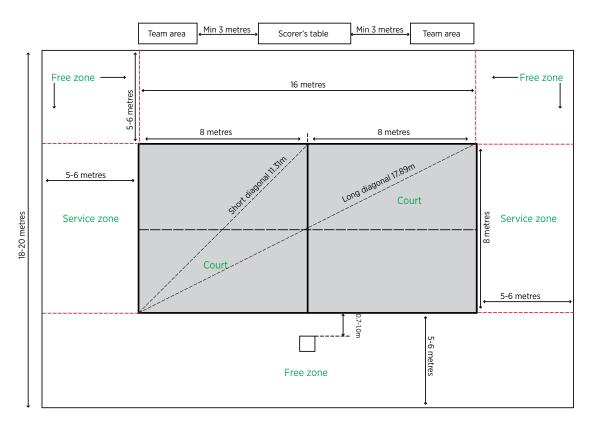
References

Official Volleyball rules 2013-2016. Volleyball

Volleyball Australia. Official Beach Volleyball Rules 2013-2016. Volleyball Australia.

www.avf.org.au/index.php/rules-of-volleyball

Beach volleyball court



Water polo

Field of play

The dimensions of a water polo field depend on the size of the pool. Governing bodies such as FINA state that the distance between the goal lines is 20m-30m for men and 15m-25m for women.

The width of the playing field varies from 10m-20m, depending on the size of the pool.

If no pool is available, water polo can be played in natural bodies of water, such as lakes and pond. Where necessary, lane lines are used to mark off the field dimensions.

The minimum water depth is 1.8m but 2m is preferred.

Markings

Water polo fields are marked with four specific distances: the goal line, the 2m line, the 5m line and the mid-pool line.

- The goal line is the spot where the front of the cage meets the beginning of the field.
- The 2m line is the point 2m out from the goal line, marked on the side of the pool with a red cone.
- The 5m line is the point 5m out from the goal line, marked on the side of the pool with a yellow cone.
- The mid-pool line marks the middle of the field of play, generally with a white cone.

Platforms for the referees are provided on both side of the field of play. These platforms are 1m square and 70cm high above the water level.

Goals

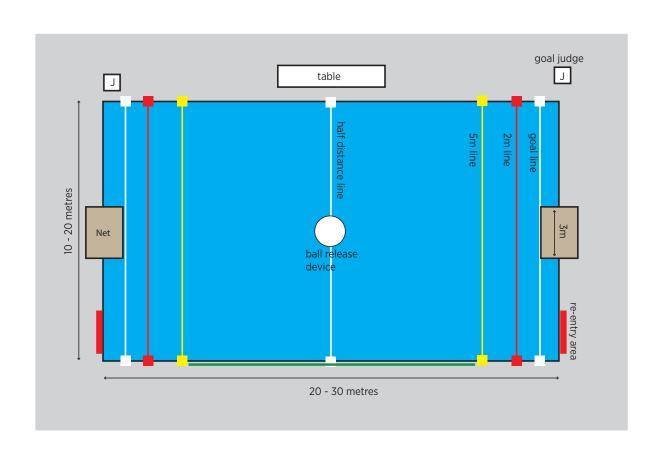
The goals posts and crossbar are made of either wood, metal or synthetic (plastic). The posts are fixed equal distance from the sides and at least 0.3m in front of the ends of the field of play.

The inner sides of the goal posts are 3m apart. The underside of the cross bar is 0.9m above the water surface. The underside of the crossbar is 0.9 metre above the water surface when the water is 1.5m or more deep and 2.4m when less than 1.5m deep.

Limp nets are securely fastened to the goal posts and crossbar, allowing not less than 0.3m of clear space behind the goal line everywhere within the goal area.

References

FINA Facilities Rules, update 28 Oct 2015. Water Polo Australia. <u>www.waterpoloaustralia.com.</u> <u>au/</u>



Weightlifting

For the sport of weightlifting the field of play relates to the area of competition which contains:

- Competition platform and stage
- · Technical Officials' and Competition Management tables
- · Warm-up area.

Platform

Two types of platforms are authorised for use by the IWF-Competition and training/ warmup platforms. Both types of platforms must meet the authorised specifications.

Competition platform

The platform is a 4m square and made of wood, plastic or any solid material and covered with a nonslip material.

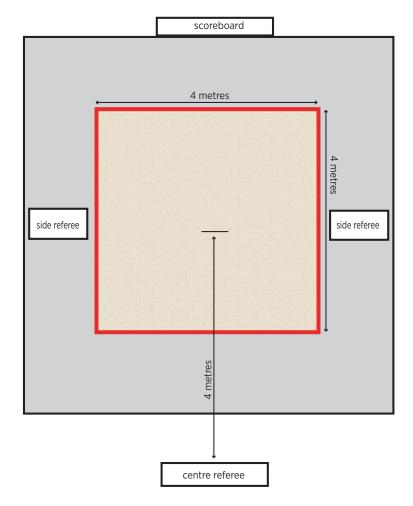
The height of the platform is between 50mm and 150mm. If the floor surrounding the platform is the same or similar colour, the top edge of the platform must have a different coloured 150mm line.

A clear one metre area surrounding the platform is compulsory. This area must be flat and free from any obstacles.

If the platform is above ground level, a restraining bar at least the width of the platform must be fixed to the stage, at least one metre in front of the platform.

Warm-up platform

The warm-up platform is 3m wide and 2.5-3m long.



Technical officials' and competition management tables

The jury table is situated 10m from the centre of the platform, between the centre and the side referee's tables and located on the side of the athlete's point of entry.

Referees Tables

- · The centre referee is located 4m from the middle of the competition platform.
- The side referees are seated on the same line as and parallel with the centre referee, 3m-4m from the centre referee.
- · Reserve referees are in a designated area on the field of

The doctor on duty is located near the athletes point of entry to competition platform.

Competition and management tables are placed on the side of the athletes point of entry to the competition platform.

Loaders and decontamination attendants have a designated area on the opposite side of the athletes' point of entry to the competition platform.

Warm-up area

Athletes are provided with a warmup area located in close proximity to the competition platform/stage relative to the venue layout.

References

International Weightlifting Federation Technical and Competition Rules and Regulations. IWF Congress - Baku. www.awf.com.au/technical/docs/ IWF%20Technical%20Rules.pdf

Wrestling

The international ruling body for wrestling is Federation Internationale Des Luttes Associees (FILA).

The mat

A new FILA approved mat has a 9m diameter and a 1.5m border and is mandatory in Olympic Games, Championships and Cups. For all other international competitions mats must be approved/sanctioned but not necessarily new.

For Olympic Games and World Championships, warm up and training mats must also be new and approved by FILA.

A red band, one metre wide, forms an integral part of the wrestling area. It is drawn along the circumference on the inside of the 9m circle. This is known as the red zone.

The central circle in the middle of the mat is one metre in diameter. The inside part of the mat inside the red circle is the central wrestling area. It is 7m in diameter. The protection area is 1.5m wide.

Surrounding the central circle is a band 10cm wide. For Greco Roman wrestling an 8cm wide line splits the circle into two parts. Two perpendicular lines, 40cm from each other, are called inside hand line and inside line. The colour of the lines are red.

The diagonally opposite corners of the mat are marked in the wrestler's colours, red and blue.

The covering and free space around the mat is 2m. The colour of the protection area is different than the mat.

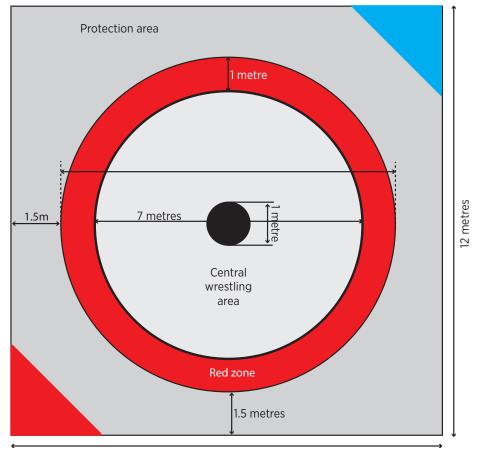
For all Olympic Games, World and Continental Championships, the mat is installed on a platform not higher than 1.1m or lower than 0.50m.

References

Wrestling WA. www.wrestlingwa.com/wwa-

documents/.

International Wrestling Rules. July 2014. Federation Internationale Des Luttes Associees (FILA) Executive Bureau., Switzerland.



12 metres



Head office

246 Vincent Street Leederville WA 6007 PO Box 329 Leederville WA 6903 Telephone (08) 9492 9700 Facsimile (08) 9492 9711 Email info@dsr.wa.gov.au Web www.dsr.wa.gov.au

Our whole community wins