

SECTION 9

AUSTRALIAN POOL LIFE SAVING CHAMPIONSHIPS FACILITY AND EQUIPMENT STANDARDS

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INTRODUCTION

Pools and equipment used for APLSC and RLSSA meets shall comply with the detailed technical specifications for construction, composition, material mechanical properties, measurements, weight and physical features set out in current ILS Competition Rule Book Section 8 - Facility and Equipment Standards and Scrutineering Procedures.

This section is a summary of ILS requirements and is intended as a quick reference to identify the basic aspects of specifications to assist officials and coaches to facilitate the conduct of APLSC or other RLSSA competitions. Coaches may also find it useful when planning training sessions.

This section also provides supplementary information specific to APLSC to reflect, among other things, local legislative and statutory requirements and RLSSA safe operating guidelines which may add to or amend the related ILS requirements.

Further, in addition to the requirement for all dive starts, the pool shall comply with the **RLSSA Guidelines for Safe Pool Operation, SD3 - Competitive Dive Starts (for Trained Competitors)**. All other pool dimensions shall, where possible, be in accordance with the Guidelines for Safe Pool Operation and consistent with ILS standards.

ILS sanction for meets requires a declaration from the competition organisers that the pool and all equipment to be used in the competition meets ILS standards.

9.1 POOL & VENUE ASSESSMENT

Pool Facility: The assessment shall include the facility measurements and a pool survey certificate (or similar) that specifies:

- Pool length, width, depths, starting platforms, lane widths and ropes,
- Electronic timing equipment and associated devices.

In the absence of such a certificate, a person appointed by the APLSC Management Committee shall check that the pool facility meets RLSSA facility standards.

The venue facility assessment shall also include specific APLSC requirements which include recording facilities, marshalling areas, meeting rooms and general and secure equipment storage areas suitable for speed events, CPR and SERC respectively.

The assessment is the responsibility of RLSSA and the Championship Organiser.

9.2 POOL FACILITY STANDARDS

Pools shall comply with ILS Standards with exceptions which may be provided for elsewhere in event rules. For detailed standards refer to the current ILS Competition Handbook Rule 8.1 - Pool Facility Standards.

9.2.1 WATER

The pool water shall meet the clarity standards and the bacteriological and chemical standards under the local health regulations, consistent with the RLSSA Guidelines for Safe Pool Operations. The water temperature shall be 25 to 28 degrees Celsius.

9.2.2 LENGTH

The pool shall be 50m between opposite ends of the pool measured either wall-to wall or touchpad to touchpad. In either case a tolerance of 0.00 to +30mm is permitted.

9.2.3 DEPTH

Pools should comply with specific depth requirements prescribed in the ILS Competition Rule Book.

Note: the NSC may authorise variations on a case-by-case basis to allow events to proceed where it is safe to do so.

In the absence of event-specific depth requirements, pools shall have a minimum depth of 1.2m and a maximum depth of 3m. Refer to 'Event Specific Requirements' below.

9.2.4 LANES

ILS Competition Rules require a minimum of eight lanes each of which shall be a minimum of 2.5m wide. There shall be two spaces of at least 200 mm wide outside the first and last lanes. There shall be lane ropes on both sides of each lane that extends the full length of the pool. Each lane rope will consist of floats placed end-to-end having a minimum diameter of 50 mm to a maximum of 150 mm. The lane ropes shall be firmly stretched.

At the discretion of the NSC, APLSC may be conducted in pools with fewer lanes.

9.2.5 STARTING PLATFORMS

The height of the platform above the water surface shall be minimum 500 mm and maximum 750 mm with a surface area not less than 500 mm x 500 mm, covered with slip-resistant material with static coefficient of 0.6 μ s or higher and a kinetic friction coefficient between 0.4 and 0.8 μ k and a maximum forward slope of 10 degrees from the horizontal plane. It may have an adjustable setting back plate and starting grips usable for both platform and in-water starts. If necessary, any exposed ends or points on the starting grips or other fittings shall be covered.

9.2.6 DIVE STARTS

ILS requirements set out in the [ILS Competition Rule Book Section 8](#) state the dive start should have a minimum depth of 1.35m extending from 1m to at least 6m from the starting wall.

These specifications are applicable only to the extent they comply with **RLSSA Guidelines for Safe Pool Operation, SD3 - Competitive Dive Starts (for Trained Competitors)** summarised in the table below noting that the optimal water depth for dive starts is 2.0m.

RECOMMENDED WATER DEPTH

DIVING HEIGHT (above water)	FOR TRAINED COMPETITORS	FOR ENTRY-LEVEL COMPETITORS
From Concourse level	1.2m - Competitive dive starts may be permitted from concourse level to a maximum height above water of 0.2m (measured from the water line to the plummet).	
From 0.2m to 0.4m	1.35m - (measured from the water line to the plummet). Competitive dive starts may be permitted from concourse level to a maximum height above water of 0.75m.	1.35m (measured from the water line to the plummet). Competitive dive starts may be permitted from concourse level to a maximum height above water of 0.4m. If the start is greater than 0.4m above the water, the start should be commenced in the water.
From 0.4m to 0.75m		1.5m or greater. Competitive dive starts may be permitted from a maximum height of 0.75m.

9.2.7 AUTOMATIC OFFICIATING EQUIPMENT

The pool shall be equipped with Automatic Officiating Equipment (AOE) to record the time of each competitor and to determine the place of each competitor in race events.

9.3 EQUIPMENT SCRUTINEERING - RLSSA/HOST PROVIDED EQUIPMENT

Prior to the start of the first event the Championship Organiser in conjunction with the Chief Referee shall ensure that all facility and RLSSA provided equipment to be used by the competitors has been checked by the Equipment Coordinator (EC) to ensure it meets specifications and safety requirements as set out for specific events (below).

The Equipment Coordinator (EC) shall also ensure that event distance markings are clearly marked. The EC shall also inspect all equipment for competitors' use and supplied by RLSSA or the host organisation, is scrutinised for compliance with the standards and requirements found in this Section. The competition equipment includes the CPR and SERC equipment as well as that required for the speed events. It does not apply to an athlete-provided equipment e.g. fins, which are subject to separate scrutiny procedures.

Items to be scrutinised include, but are not limited to:

- Obstacles, rescue tubes, throw lines, manikins
- Manikin platforms (including a depth check to ensure the platform is not too shallow or deep)

Any items found to be non-compliant and/or unsafe which can't be repaired or otherwise made good cannot be used. It must be removed to a location where they can't be inadvertently accessed or disposed of.

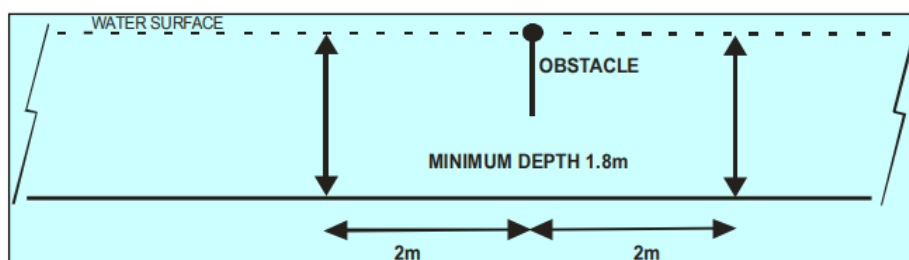
Equipment may be re-inspected at any time throughout the meet where it is believed the item has varied from the standard through routine use during the competition.

The EC requires such measuring and marking equipment as to allow completion of various tasks. As a minimum:

- A 10m tape measure marked in 1mm increments
- Weighing scale 50kg minimum capacity marked with 0.01 kg/100gm increments
- Fin box in which the fins can be fully inserted and another measurement tool for quick and efficient measurement of fins

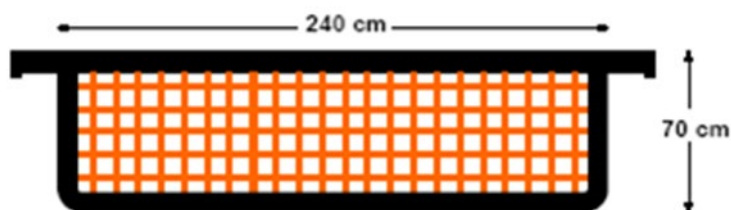
9.4 OBSTACLE EVENTS – INDIVIDUAL EVENTS AND RELAYS

The minimum pool depth shall be 1.8 m extending for 2.0 m on either side of any obstacle.



Construction materials and dimensions shall comply with Rule 8.8 of the ILS Competition Rule Book ensuring any sharp joins, edges and ends are covered to prevent injury to competitors and equipment handlers.

9.4.1 OBSTACLE SPECIFICATIONS



Obstacles used in pool swimming events shall meet the following requirements:

- Dimensions: 700mm (± 10 mm) high and 2.4m (± 30 mm) wide with no dangerous parts.
- Inner Frame: The inner frame shall consist of a net or another element which does not permit passage by a swimmer, and which is of a bright colour which contrasts with the water so it is clearly visible.
- Upper Line: The upper line of the obstacle is placed on the water level and is clearly visible. Use of an additional floating line across the upper line of the obstacles is recommended.

The National Sport Committee may approve alterations of obstacles to suit the local pool dimensions.

9.5 MANIKIN CARRY EVENTS – GENERAL POSITIONING REQUIREMENTS

For all carry events the manikin is located on its back in contact with the pool bottom. As the manikin is recovered from the bottom it needs to rest on its back without moving for an extended period of time and without leaking water or air. The manikin weight should be located such that it keeps the manikin stationary while positioned on its back.

The minimum pool depth shall be 1.8m measured at the manikin location point/s extending 1.0m along the event course as necessary for the particular event. In pools deeper than 3.0m, platforms or stands may be used to hold manikins at the 3.0m depth.

9.5.1 MANIKIN CARRY EVENTS – POSITIONING MID-POOL

The Manikin is positioned at the middle of the pool and at a distance from the pool end as required for each event.

The minimum pool depth shall be 1.8m measured at the manikin location point/s extending 1.0 m along the event course in both directions.

The manikin is located mid-pool for the following events: 50m Manikin Carry, 100m Rescue Medley (lap 2), 100m Manikin Lifesaver Medley, 200m Super Lifesaver (Lap 2) as per Illustration 1 below.

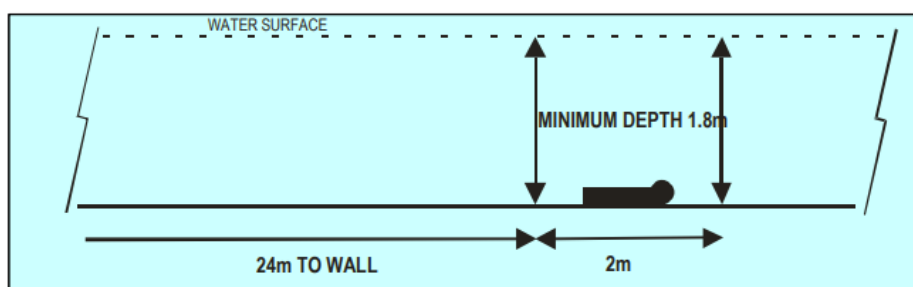


Illustration 1

For the 100 m Rescue Medley, Lap 2, the location point is centred at 17.5 m from the turn wall.

9.5.2 MANIKIN CARRY EVENTS – POSITIONING POOL END

The Manikin is positioned at the pool end for the following events: 100m Manikin Carry with Fins, 100m Manikin Lifesaver Medley, 200m Pool Lifesaver Relay (Leg 3)

The manikin is located on the bottom with its base touching the pool wall and its head in the direction of the finish.

The minimum pool depth shall be 1.8m measured at the pool end walls extending at least 2.0m along the event course.

Where the pool design does not provide a vertical wall that joins the bottom at 90 degrees the manikin shall be positioned as close as possible to the wall but no further than 300 mm from the wall, measured vertically at the water surface. A stand or other suitable device may be used to provide a level surface for the manikin provided whichever method is used does not hinder or advantage the competitor retrieving the manikin.

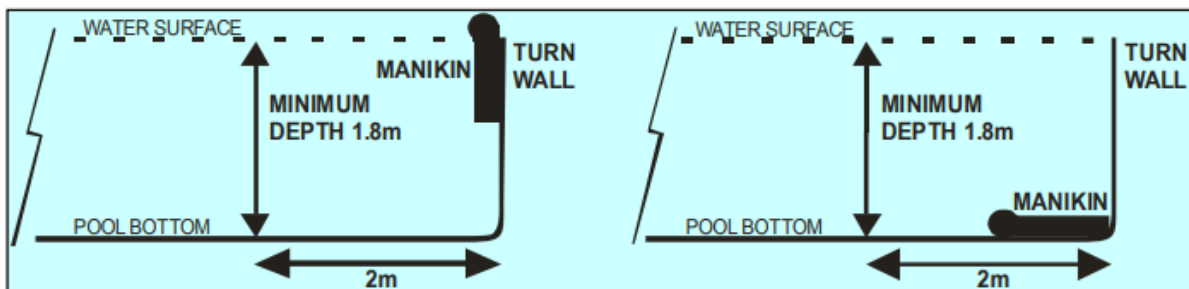


Illustration 2

9.5.3 MANIKIN TOW EVENTS – POSITIONING

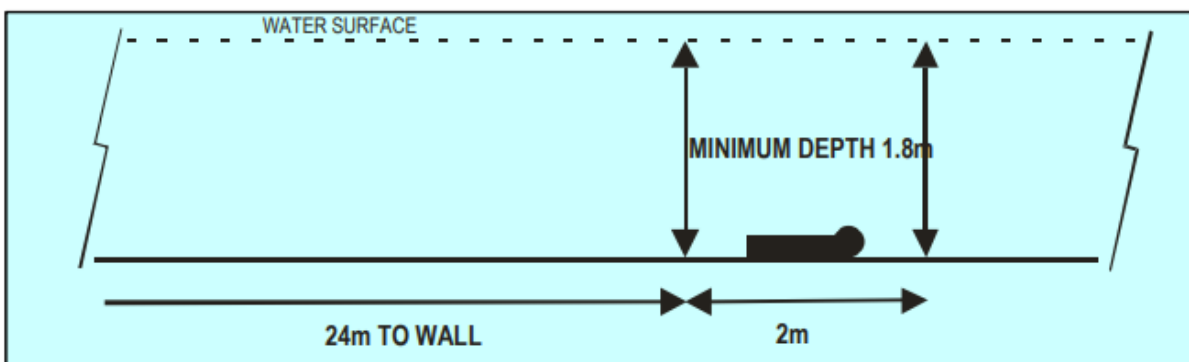
The Manikin is positioned at the pool end for the following events: 100m Manikin Tow with Fins, 100m Manikin Lifesaver Medley, 200m Super Lifesaver (Lap 4).

The minimum pool depth shall be 1.8m measured at the manikin location point/s (see Illustration 2 above).

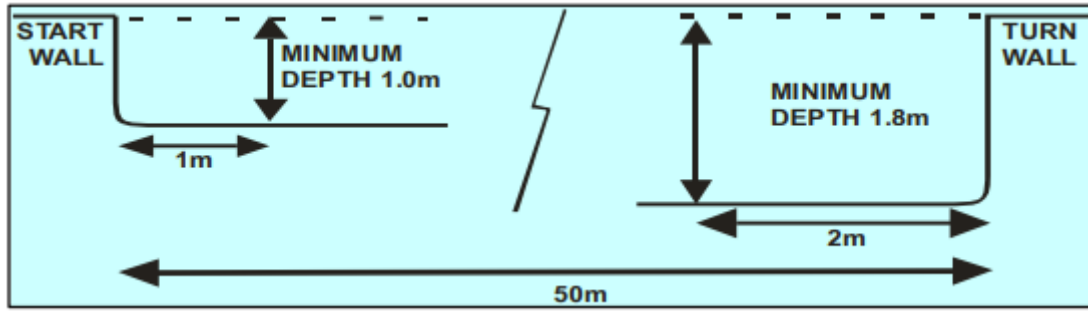
The manikin needs to be able to float at the transition line for extended periods of time without leaking or filling with additional water.

9.5.4 MANIKIN RELAY (4 X 25M)

The exchange area in the middle of the pool shall have a minimum depth of 1.8m measured at 25m from either pool end extending at least 2.5m along the course in both directions.



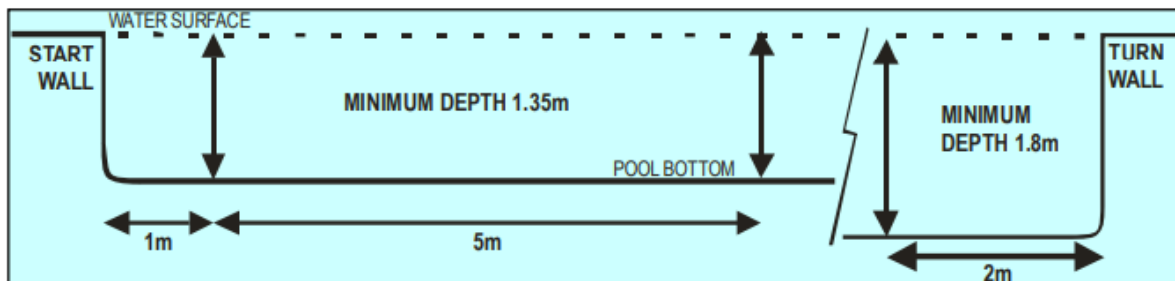
At the start wall the minimum depth shall be 1.0m extending 1.0m along the course and at the turn wall it shall be 1.8m extending 2.0m along the course.



9.5.5 MEDLEY RELAY (4X50M) AND RESCUE TOW RELAY (4X50M)

At the start end (competitors 1 and 3) the minimum pool depth shall be 1.35m extending from not less than 1.0m to at least 6.0m from the start wall.

At the change wall end (competitors 2 and 4) the minimum depth shall be 1.8m extending at least 2.0m along the course.

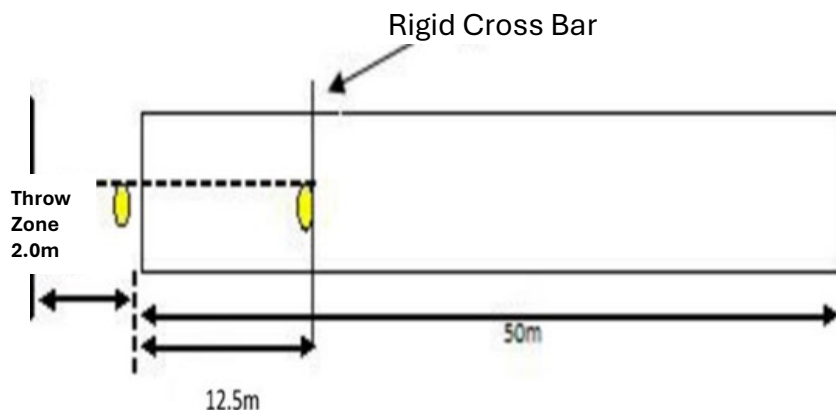


9.6 LINE THROW

Minimum pool depth of 1.8m extending at least 2.0m from the rigid crossbar, along the course towards the start point.

The rigid crossbar is positioned at the surface across each lane at 12.5 m from the start end of the pool.

The throw zone on pool deck extends from the pool wall back 2.0m.



9.6.1 LINE THROW ROPE

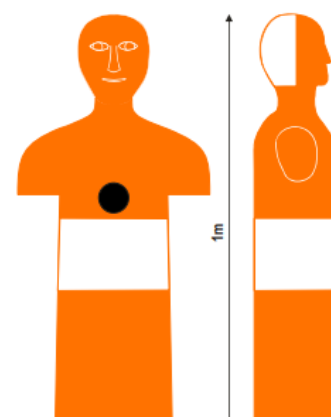
The line used for the line throw events shall be plaited, buoyant polypropylene with non-memory characteristics with a diameter of 8mm and length minimum 16.5m and maximum 17.5m.

9.7 RESCUE MANIKIN SPECIFICATIONS

Rescue manikins shall comply with the detailed specifications covering construction and composition, material mechanical properties, technical measurements and weight and physical features set out in the [ILS Competition Rule Book Section 8](#).

The manikin's head requires the following features; eyes, nose, mouth, chin, jaw and throat. The body requires a chest, torso arm buds, abdomen and pelvis.

Manikins used in APLSC shall be filled in accordance with requirements provided in Section 4, 7 and 8 event descriptions.



The illustration demonstrates the visual properties of a compliant rescue manikin.

MANIKIN ILS SPECIFICATION SUMMARY	
Construction	PITET type plastic and MUST be hermetic (i.e., capable of being filled with water and sealed for competition)
Height	1.0m
Colour	Back of the manikin's head and the transverse line must be painted in a colour contrasting to the rest of the manikin and the water
Traverse Line	150mm wide located across the middle of the manikin's body (measured 400mm from the bottom of the body)

9.8 SERC MANIKINS

Manikins used in SERC must have limbs, be flexible and be sinkable with the ability to be weighted appropriate to the competition. It is ideal for the manikin resembles human form.

9.9 CPR COMPETITION MANIKINS

Manikins used in the CPR Competition must be compatible with the QCPR recording to provide data to complete the scoresheets for effectiveness of breaths and compressions.

Competitors must use the manikins supplied.

Manikins are normally supplied by Laerdal. The exact mannikin type will depend on what is available at the time and location of the competition.

Where possible teams will be notified prior to APLSC of the manikin type to be used during the competition and competitors will be provided with an opportunity to have a short training session on the competition mannikin during APLSC warm-up sessions.

9.10 RESCUE TUBES

The Rescue Tube is comprised of:

- the body of the tube
- a clip attached by a small length of line to the body of the tube
- a line connecting the tube body to a harness
- a harness with webbing connections

The total combined length of the rescue tube, from the clip to the end of the harness, is a minimum 3.65 m and maximum 4.30 m inclusive of all webbing and joiners such as O-rings.

The rescue tube body and all fittings, components and fixings shall have no sharp edges or protrusions that could injure competitors.

Rescue Tubes used for APLSC shall be approved by the NSC and shall comply with the detailed specifications which cover construction materials and methods, buoyancy and source of buoyancy, flexibility, component strength, weight and colour, material mechanical properties, technical measurements and component dimensions set out in the current [ILS Competition Rule Book Section 8](#).

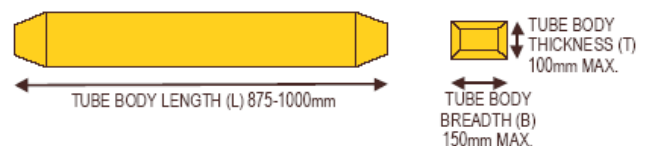
The following measurements and illustrations demonstrate the key dimensions and visual properties of a compliant rescue tube:

- The total weight of the tube should be between 600-750 gm
- The flexibility of the body of the rescue tube shall be such as to be able to roll within itself with a force of 5-6kg

COMPONENT DIMENSIONS AND TYPES

Tube body shall be:

- **Length:** minimum 875 mm/ maximum 1000 mm
- **Breadth:** maximum 150 mm
- **Thickness:** maximum 100 mm



CLIP AND O-RING ATTACHMENT (INCLUDING THE TUBE)

From the clip to the 1st O-ring the length shall be not less than 1.0 m or greater than 1.4m and from the clip to 2nd O-ring the length shall be not less than 1.3m or greater than 1.65m.



The webbing connecting the tube to the clip and O-rings shall be to the tube shall be 25mm wide \pm 5.0mm.

The line to the lanyard/harness shall be a synthetic type of rope with a length not less than 1.90m and not greater than 2.10m.

The webbing for harness shall be 50mm wide with a length not less than 1.3m and not greater than 1.60m. The circumference of the harness loop shall be a minimum of 1.2m.