

# Commercial Tender Specifications

## Underseat Rollers

### Design Notes

Where possible, pool covers should be positioned where starting blocks are not present, or removeable. This will significantly aid the daily operation of covers, saving time and energy.

Allowing additional roller 'runout' (roller extends past cover) is essential for convenient operation. This can be maximised by using staggered rollers, For In-Pit, Wall and Ceiling mounted rollers, staggering can be achieved at the same end of the pool. For Underseat Rollers ends of the pool must be staggered.

### Roller Tube

All Sunbather Pool Cover Rollers are constructed from 6060-T5 Aluminium, anodised to a minimum depth of 15µm (microns).

Rollers must be of suitable diameter to prevent excessive creasing whilst coiling. For commercial pool covers minimum roller sizes of Ø150mm or Ø200mm are to be considered. For ramp covers and bathing cover sections roller diameters of minimum Ø114mm may be considered.

Roller design must limit deflection to no greater than one three hundredth of its length with internal bending stress no greater than 27.5 MPa (safety factor 4.0).

### Bungs

All Ø150mm or Ø200mm bungs are constructed of glass filled nylon, insert moulded with ferrules for coupling with shafts and handwheels.

### Shafts

Austenitic stainless-steel bar of minimum grade SAE 304 (ASTM 276) is to be used.

For indoor environments electropolishing of shafts is highly recommended to combat stress corrosion cracking, evident in high chloride environments.

### Bearings

Bearings for all commercial rollers are to include stainless-steel ball bearings.

Pillow block and flange mounted bearing housings and inserts are to be constructed from corrosion resistant SAE 304 stainless-steel. Further corrosion inhibiting treatment is recommended for indoor pool centres.

Radial ball bearings inserted in mobile roller end-frames are to be constructed from corrosion resistant SAE 440C grade stainless steel or greater.



 **1800 228 437**

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## Seating Plank

Anodised aluminium seating planks are used for their ideal thermal regulation properties. With low solar absorptivity, significantly reducing the heat absorption from solar radiation, along with high emissivity to shed heat gained. High specific heat properties can slow heat-up (and cool down) times but are less significant.

Seating plank must be suitable for spans up to 1.8-metres and deflect no more than 10mm when subject to a 360kg universally distributed load or 150kg point load.

Custom seating finishes are not recommended, in some cases can be accommodated. For suitability in sun-exposed areas seating material must be corrosion resistant, anhygroscopic with a solar absorptivity to emissivity ratio of 0.2 or lower. Materials with an absorptivity greater than 0.15 or incapable of spanning 1.2-metres with a 150kg point load, are not acceptable.

## Frames

Frames are constructed from 5-milimeter thick SAE 304 angle. The welded assembly is cleaned, prepped and powder coated for additional corrosion protection and reduced solar absorptivity.

End-frames are to be fully supported ladder frames. Intermediate frames are cantilevered over the pool cover roller. All frame- feet must be inward facing to reduce trip hazard potential. Each frame is independently mounted using M10 chemical anchors.

## Available Versions

25-metre covers use frames with two seating planks spanning the full length over the roller and extending 510-millimeters deep. The height is restricted to a minimum of 635-millimeters above ground level.

50-metre covers use frames with three seating planks spanning the full length over the roller and extending 800-millimeters deep. Bench height is restricted to a minimum of 820-millimeters above ground level.

Note: Where concourse is uneven or presents a fall along the roller, seat heights must be taken from the highest point.

Coaxial drive options are available on request. These utilise a solid Ø30mm SAE 304 to pass through the entire length of a roller and engage the subsequent roller. This makes it possible to mechanically drive four inline rollers, provided permissible access from both ends.

For covers up to 25-metres a tubular motorised option can be included, making possible to install multiple rollers inline.

All inline rollers require larger gaps between covers and significantly reduces runout on rollers, requiring more precise operation. Mechanically driven rollers are preferable where possible and carry longer warranty periods.

## Colour

St Elmo's Fire – Powder Coated Frames

Anodised Aluminium – Roller & Seating

Custom Powder Coating POA

## Warranty

10 Year – Stainless Frame, Roller Tube & Bungs

5 Year – Seating Planks

1 Year – Accessories & Installation

Please see full warranty information – <https://sunbather.com.au/support/warranty/>



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