

Commercial Tender Specifications

Motorised 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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Motors

Covers up to 25 metres long and 5.5 metres wide, incorporate internal tubular 240VAC, 85 Newton-metre motors with rated current of 2.1 amps. Available in Ø150 or Ø200 roller tubes and rated to ingress protection IP45 (as per AS 60529-2004).

Covers larger than 25 metres, are driven by an external 3-phase, 4-pole, IP65, TEFC motor, controlled by variable speed drive with 240VAC connection. This motor is coupled to the shaft via a worm drive gearbox, with an 80:1 reduction. Available in only Ø200 roller tubes.

All motors are capable of setting limits at each end of cover operation.

Note: Motorised rollers are for assisting cover retrieval only. Covers must still be deployed by operators, as the motor sheds the cover.

Mounting Options – End-Frames

Ground Mount frames are constructed from 100-millimetre square section 6060-T5 Aluminium, with 5083-H116. base. Welded frame assemblies must be anodised to a minimum of 15µm (microns). Frames are fixed to the floor using Ø12mm chemical anchors of SAE 316 stainless-steel.

Wall Mount frames for 25m Pools are constructed from 65-millimetre square section 6060-T5 (25m) or 76.2-millimetre 5005A-T5 Aluminium (50m), with 5005-H34 brackets. Welded frame assemblies must be anodised to a minimum of 20µm (microns). Frames can be fitted to suitably structural walls, capable of supporting 500kg/cover on 50m pools, 275kg/cover on 25m Pools. Alternatively, provisions must be made in Pool Centre design to provide dedicated mounting positions for wall brackets.

Ceiling Mount motorised rollers are constructed from 76.2-millimetre square section 6005A-T5 Aluminium, with 5083 Aluminium brackets. Welded frame assemblies must be anodised to a minimum of 20µm (microns). Frames are fitted to a provided structure (by others) with cast-in M16 Ferrules (x3) or thru-bolted using M12 fixings (x6). Each mounting set must be capable of supporting 500kg/cover on 50m pools, 275kg/cover on 25m Pools.

In all cases, weld substrate must be 5356 or equivalent material properties and compatible with both base metals. Welding must achieve adequate penetration to both metals, with no cracking after weld cools.

Colour

Anodised Aluminium

Warranty

10 Year – End Frames, Roller Tube, Shaft & Bungs

1 Year – TEFC Motor & Gearbox, Tubular Motor, Electronics

1 Year – Accessories & Installation

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



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