

Specification Details

The Albany Arena Stadia Seat Steel Beam Bracket Assembly

1. General

The Albany Arena Stadia Seat is a gravity activated, tip up plastic stadium seat, injection moulded in polypropylene and supported on a medium, hot dipped galvanised or powder coated, corrosion resistant steel frame.

The Starena Group has no licence to use the Albany mark nor to market and supply the Albany product within Australia or New Zealand.

2. Specific Specifications

- 2.1** The Seat shall be supported on two (2) 25mm X 8mm high tensile fingers, welded to a 40 X 40 X 3mm SHS.
- 2.2** No screws, bolts or mechanical fixings shall be used to attach the plastic seating components to the steelwork.
- 2.3** No vertical steel members shall be used to attach the plastic back member.
- 2.4** The seat shall feature a flexing back to provide a balance of patron comfort, performance and flexibility, whilst maintaining its full strength.
- 2.5** The seat base shall be provided with a minimum of seven (7) ventilation holes and fifteen (15) horizontal grooves to aid air flow over the surface.
- 2.6** The seat shall have an initial stop at the “three quarter up” wave safe position. The seat shall be capable of being sprung back to the fully upright position for improved stadium access and cleaning.
- 2.7** The seat shall feature a near silent tip-up mechanism.
- 2.8** The seat shall incorporate a full lower back to eliminate interference from the feet of the people behind.
- 2.9** The seat shall be guaranteed to maintain its original colour with minimal fading for a five year guarantee period.

3. General Specifications

- 3.1 A single or two digit numbering system shall be supplied.
- 3.2 Aisle end of row identification plates shall be supplied.
- 3.3 The seat shall provide posture positions in accordance with AS/NZ 4438 and Work Safe Australia dimensions for fixed chairs.
- 3.4 The seat shall be supplied so that the system will not fatigue in its useful life.
- 3.5 The seat shall embrace the sustainable environment considerations of reduce, reuse, recycle, accordingly all components are to be recyclable.

4. Test Criteria

The seat shall be designed to withstand the dynamic loading of spectators in accordance with BS4875 / EN12727:2000. In addition, the seat shall meet the following load criteria:

- 4.1 **Seat Static Load Test: load applied 2000N X 10 times.**
- 4.2 **Back Static Load Test: load applied 760N X 10 times.**
- 4.3 **Seat Fatigue Test: load applied 950N X 200,000 times.**
- 4.4 **Back Fatigue Test: load applied 330N X 200,000 times.**
- 4.5 **Seat Impact Test: impact 6.4kg X 10 times @ 300mm.**
- 4.6 **Back Impact Test: impact 6.4kg X 10 times @ 620mm.**
- 4.7 The seat shall meet the minimum requirements of BS4875 / EN12727:2000 and be **fully tested by independent test authorities**. The supplier shall submit such data with each tender.
- 4.8 The moulded seat shall be produced from polypropylene impact co-polymers, formulated with ultra violet light stabilization and anti static inhibitors.
- 4.9 For seating modules following shall apply; in accordance with AS1530:3., incorporating a fire retardant to the co-polymer, the following shall apply, in accordance with AS1530:3.

Ignitability Index	0
Spread of Flame Index	0
Heat Evolved Index	0
Smoke developed Index	3

In addition, the Seat shall comply with the following: BS5852 – 1990 Section 5 – with Fire Ignition Sources 0, 4, 5, 6 and 7.

The Seat shall also comply with CSIRO BCE Doc 01 / 136 – April 2001: A protocol for the selection of row seating on the basis of fire performance.

5. Structural Steel Criteria

All structural steel elements shall comply with the following or equivalent country standards:

- 5.1** All workmanship and materials shall be in accordance with AS4100 and AS1554, unless varied by the lead contract documents.
- 5.2** Unless noted otherwise, all material shall be:
- Grade 300 hot-rolled plates complying with AS3678.
 - Grade 300 hot-rolled flats, TFC, TFB, angles 100 X 100 each or 125 X 75 VA and smaller complying with AS3679.1.
 - Grade 300 plus UB, UC, PFC and angles 125 X 125 each or 150 X 90 UA and larger.
 - Grade C350RHS, SHS complying with AS1163.
- 5.3** Welding shall be carried out in accordance with AS1554.1, welding consumables shall be E48XX or W50X U.N.O. All welds shall be 6mm CFWSP category U.N.O. CPBW shall be SP category U.N.O., inspection shall be carried out to AS1554.1, and all welds shall be 100% visually scanned.

For CPBW allow for physical testing (intervals to be nominated). Butt welds shall be complete penetration welds to AS1554.

5.4 Provide seal plates to all hollow sections, provide vent holes to hollow members and drain holes. All members which are hot dipped galvanised.

5.5 Structural steelwork shall have the following surface treatment in accordance with the specifications.

Element	Surface Cleaning	Protective Coating
All	All	Hot dip galvanised

6. Fixing Criteria

Fixings - all mechanical anchors nominated shall be a minimum of Hilti M10 X 60mm. HSC under cutting anchors, or approved equal, installed in accordance with the manufacturers specifications.

7. Assembly Criteria

Seating shall be assembled in accordance with the suppliers, document Q.A. installation procedure.

8. Installation Criteria

Installation shall be in accordance with the clients nominated seating layout drawings for location, seat height, seat number and seat colour.

Any variations between approved client drawings and actual site dimensions are to be clarified and approved by the client prior to proceeding with any set out work.

It is the responsibility of the client to establish aisle location points.

Alternatively, if no aisle locations are established, the installer shall locate a grid reference on the platform (by survey if no existing accurate reference is available), and measure an offset to the nearest aisle edge (distance determined from client drawings). Measure and mark out several aisles on either side of the adopted reference point, or as close as to the next available grid reference location as possible. Calculate the offset from one of the measured aisle locations to the next nearest grid reference point, check dimension for accuracy. Check measure between aisles for accuracy and have client approve.

Install seat in accordance with suppliers nominated Q.A. procedure.

9. Plastics Criteria

The machine set up and moulding conditions will be to the moulders Q.A. procedure.

Critical production checks are:

- ◆ Remove excess flush around parting lines.
- ◆ One sample per hour to be checked using the GO-NOGO jig.
- ◆ Component colour, mouldings to be checked each shift against approved colour chips.
- ◆ Mouldings to be placed in individual poly bags and placed in carton.