

# PLATFORM SPECIFICATIONS

## 1.0 GENERAL DESCRIPTION OF STRUCTURE

- 1.1** The total framing shall be constructed as a braced self-supporting structure. The platforms shall be covered in plywood and operate on a telescopic principle, stacking vertically under one another to cover a minimum floor area when stored. In the extended position, front and rear riser boards shall close in the platform for spectator security and to prevent debris from falling through the platform.
- 1.2** Each row shall open and close in respect to adjacent frames and be permanently interlocked with each other.
- 1.3** Each row shall have mechanical row locks, or be fitted with a system so that any or all rows may be locked open for use.
- 1.4** All sliding parts shall have Teflon rubbing surfaces to eliminate wear and friction between metal surfaces.
- 1.5** Platform support arms shall have a mechanical adjusting device for setting minimum clearances to compensate for minor manufacturing and building variations.
- 1.6** Spacing between adjacent platform sections shall not exceed 30mm.
- 1.7** On fixed units, locating lugs shall be fixed to the rear wall, or floor to secure the units in the working position.

## 2.0 OPERATIONS

### 2.1 Transportable Units

- 2.1.2** Shall be provided with sufficient strength and interlocking lugs for safe transport of the units.
- 2.1.3** Shall be transported by means of two trolleys, each with two double tyre swivel castors with non-marking polyurethane wheels. The trolleys shall hydraulically raise the seating units for easy transport.
- 2.1.4** Shall be transported by means of two trolleys, each with turntables and six swivel castors with non-marking polyurethane wheels. The trolleys shall be air operated to raise the seating for easy transport. A small portable air compressor is included to operate the trolleys.

- 2.1.5** Shall be transported by forklift.

### 2.2 Fixed units motorised operation

Shall be extended and retracted automatically by permanently located drive units fixed under the seating, operated by key-controlled wall panel or removable push-button control pendant.

## 3.0 PLATFORM CONSTRUCTION

Telescopic retractable platforms shall be designed to withstand the following forces:

- > Live load over the platform area 5kPa.
- > Longitudinal sway parallel to platform 0.35kN.
- > Front to back sway 0.15kN.

### Standards

- > All work shall comply with the relevant
- > AUSTRALIAN STANDARDS
- > AS 1170-1 Dead and Live Loads
- > AS 1538 Cold Formed Structures
- > AS 1720-1 Timber Structures
- > AS 4100 Steel Structures
- > AS/NZS 1170.1:2002 Structural Design Actions
- > BCA – Sections C, D, H.

### 3.1 Main Frame

Shall consist of two frames per length except for long platforms where additional frames are used. The frames shall be permanently interlocked at the top and bottom. The base shall be constructed of cold-formed steel section with integrated interlocking and a latch system as required. Each base shall contain a minimum of four nylon or polyurethane wheels. Number of wheels fitted will vary to suit floor loading constraints. The support structure consists of 65 x 35RHS platform support arms bolted to columns of 95 x 35RHS. The longitudinal platform supports are 75 x 50RHS or selected to suit span.

### 3.2 Bracing

Shall consist of 35 x 35 tube braces connecting the longitudinal platform members to the main frames to prevent sway.

Note: The steel frames, together with the longitudinal platform supports form a complete structural frame. The strength of the sheathing timber is not taken into consideration when designing the structure.

### 3.3 Timber

Platforms, front and rear riser boards and seat boards shall be 19mm / 21mm / 25mm. B Bond waterproof B D grade plywood, V-jointed to form a continuous length. Knots to be patched not filled.

- > Ignitability - Index - (0-20) - 14
- > Spread of Flame - Index - (0-10) - 8
- > Heat Evolved - Index - (0-10) - 9
- > Smoke Developed - Index - (0-10) - 2

### 3.4 Latch Systems

All sections shall be held together by an interlocking latch in the extended position to prevent unwanted movement between rows. This latch must be released before retracting, acting as a safety system to prevent unauthorised use.

## 3.5 Fastenings

Platforms and riser boards shall be fixed to support structure with self-drilling screws. All bolts shall be zinc plated and provided with shake-proof washers where required.

## 4.0 WHEEL SYSTEM

### 4.1 Fixed Wheel System - Nylon

Wheels shall be 100 nominal diameter x 30 wide Nylon for hard floors, wheels shall have a 19 D axle with roller bearings. Bearings will be packed with waterproof grease.

### 4.2 Fixed Wheel System - Polyurethane

Wheels shall be 100 nominal diameter x 30 wide Polyurethane for softer floors. Wheels shall have a 19 D axle with roller bearings. Bearings will be packed with waterproof grease.

## 5.0 END & REAR SAFETY RAIL SYSTEM

### 5.1 Permanently Fixed Handrails

Shall be 33D tube fixed to the platform. The handrails shall retract or extend with the seating unit. Maximum width opening 120mm.

### 5.2 Removable Handrails

Shall be 33D tube fitted to sockets on the platform. Handrails are removed before retracting seating unit. Maximum width opening 120mm.

## 6.0 STEPS FOR AISLEWAYS

Aisles may be positioned at any convenient location along the length of the platform. Contact ACROMAT and your local authority for details or regulations.

### 6.1 Steps shall be fixed to the platform or

### 6.2 Steps shall move forward when seating unit is retracted to present a uniform front face in the retracted position or

### 6.3 Steps shall be recessed into the platform to provide an equal going and rise.

### 6.4 Step Nosing

1. Shall consist of an Aluminium section VA 1498 single square kg/m .378 P160 with a black synthetic cork insert.
2. Shall consist of 20mm x 20mm of Aluminium angle with a ribbed pattern on the top edge. Colour - Natural.
3. Glow tread fitted to Aluminium step nosing.

## 7.0 FINISHES

### 7.1.1 All steelwork shall be thoroughly cleaned, primed and finished with black industrial lacquer. Or

### 7.1.2 All steelwork will be hot dipped galvanised to Australian Standards AS/NZS 4680 1999

### 7.2.1 All timber which is not carpeted shall be sanded, sealed & covered with 3 coats of clear urethane or a solid colour. Or

**7.2.2** All timber shall be sanded, sealed and covered with one coat of AV Syntec concrete base coat, 2 coats of Rebound Synpave, non slip top coat and 2 coats of clear urethane sealer. Or

**7.2.3** All timber shall be waterproofed Plywood flooring with a phenolic non-slip film "Koskicrown or similar". All edges will be coated with a water proof oil-based stain.

**7.3.1** Bolts, nuts and fittings shall be zinc plated to prevent oxidization. Or

**7.3.2** Bolts, nuts and fittings shall be hot dipped galvanised. Or

**7.4** All surface corners and edges shall be free from burrs or protrusions.

## 7.5 CARPETS

### 7.5.1 Non Woven

- > Name – "Images" Autex Carpets or similar
- > Fibre – Polypropylene UV stabilised, Anti Static
- > Weight 1200gms, Fire Retardant backing
- > Fire Rating – Conform to AS1530P11
- > Ignitability 16, Spread of Flame 0, Heat Evolved 0, Smoke Developed 4.

**7.5.2** Carpet is Godfrey Hurst "Kingsgate Heather" or similar.

- > Level loop pile
- > 100% wool
- > 1360gms per sq. metre
- > Fire Rating – Ignitability 15, Spread of Flame 0, Heat Evolved 1, Smoke Developed 4.

**7.5.3** Carpet is Godfrey Hurst "Kingsgate Town" or similar.

- > Level loop pile
- > 90% Wool, 10% Nylon
- > 1360gms per sq. metre
- > Fire Rating – Ignitability 15, Spread of Flame 0, Heat Evolved 1, Smoke Developed 4.

**7.5.4** Carpet underlay shall be Dunlop Ultralay 11, double bond system, density 175 g/m<sup>3</sup>, thickness 5.0mm + 0.3

## ACCESSORIES

### 8.0 Audience Control Systems

#### 8.1 Aisle Lights

Aisle lights shall be fitted to each step and each riser. Aisle lights shall be 12 volt 5 watt 2000 hr, powered by a 240 volt AC transformer.

#### 8.2 Row Numbers or Letters

Fitted to platform riser, letters or numbers shall be white on a black background 45mm high.

### 8.3 Seat Numbers

Seat numbers shall be black numbers on a white background and fixed to the front top of the backrest or a position easily seen from the front of the seat.

### 9.0 CLOSURE PANELS

#### 9.1 Back Panels

Back panels will be fixed permanently to the rear of the seating units. Panel will be made of 12mm plywood painted clear urethane or solid colour.

#### 9.2.1 Side Panels – Removable

Side panels are made from a 6mm Plywood fastened to a lightweight steel frame. The panels have hooks which fit over the bottom rail of the handrail. Panels are connected with each other to form a continuous wall. The panels are painted a solid colour or can be covered in special fabric.

**9.2.2** Side panels are made from 100% black woollen fabric, Macquarie "Integrity". Each panel hooks onto the handrails or under the platform and overlaps to give a continuous covering.

#### Fabric Flammability Specifications

- > Ignitability 11
- > Spread of Flame 0
- > Heat Evolved 0
- > Smoke Developed 4.

#### 9.3 Side Panels - Retractable

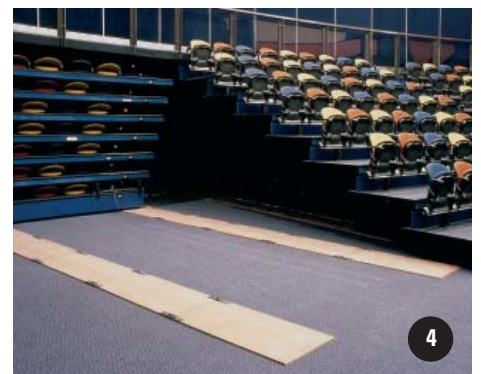
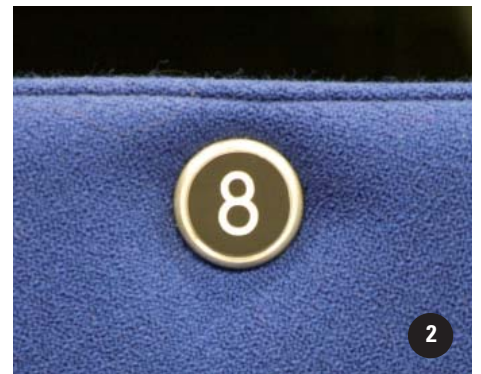
Side panels are made from 6mm plywood fastened to a lightweight steel frame. The panels are attached permanently to the underside of each platform and retract automatically when the seating unit is operated.

### 10.0 Platform Cover Strips

Provided to cover clearances between seating units, fixed floors, mobile stair units and seating units.

### 10.1 Running Boards

A hard surface placed under the wheel system to reduce rolling loads on carpet and soft surfaces. Made from 12mm ply, sanded and sealed with three coats of clear urethane. Each panel is approx. 1200 long fitted with interlocking lugs. The panels are required to be laid, interlocked in front of the wheels each time the seating is extended. When the seating is retracted the panels are removed and stored.



- 1 Aisle lights, Row letters
- 2 Seat numbers
- 3 Gap covers between units
- 4 Running boards for soft surfaces

# SEAT SPECIFICATIONS

## S10 SERIES

### Type 11 raised timber bench seat

#### Construction

The seat is made from 19mm plywood with a depth of 250mm and raised approximately 100mm off the platform.

### Type 12 continuous cushion bench seat

#### Construction

The bench consists of 45mm thick high density foam covered with a soft vinyl or woollen fabric.

### Type 13 contoured timber bench seat

#### Construction

The bench is moulded from high density fibreboard with a depth of 290mm and raised approx. 100mm off the platform. The bench is finished with a hard wearing solid colour paint.

## S20 SERIES

### Type 21 continuous cushioned bench seat with backrest

The type 21 seat allows medium comfort and provides maximum seating spaces on your platforms.

#### Construction

The bench consists of 45mm thick high density foam on the seat and 35mm thick foam on the backrest. Both seat and backrest are covered with soft vinyl or woollen fabric.

### Type 22, 23A, 23B

The seat and backrest are moulded high density polyethylene.

- > Seats are single
- > Seat backs fold automatically
- > Finish of seat frame is powder coat textured black.

### Type 22

The Acromat type 22 seat is comfortable, low cost and simple in design. The minimum seat centres for this chair are 460mm. Minimum standard platform rise is 315mm.

#### Construction

The seat and backrest are moulded high density polyethylene.

### Type 23A seat upholstered inserts

The Acromat type 23A seat is fitted with an upholstered seat & back insert to increase comfort & seating time. The minimum seat centres for this chair are 460mm. Minimum standard rise is 315mm.

#### Construction

The seat and backrest are moulded high density polyethylene. The inserts are woollen fabric over a 20mm foam covered timber backing, fastened to the plastic moulding.

### Type 23B seat fully upholstered

The Acromat type 23B seat is a fully upholstered seat and back with thicker padding and increased comfort. The minimum seat centres for this chair are 460mm. Minimum standard platform rise is 315mm.

#### Construction

The seat and backrest consist of a high density polyethylene moulded shell with 20mm thick foam glued to the front surfaces and covered with a woollen fabric. The seat and back covers are fitted with zips for removal & cleaning.

## S60 SERIES

### Type 61, 62A, 62B, 63A, 63B, 64

- > Chairs are ganged in threes & twos.
- > The chair seat tilts to increase access.
- > A foot-controlled mechanism allows the seat to fold into the stored position.
- > Finish of chair frame is powder coat textured black.

### Type 61 seat

The Acromat type 61 seat is a comfortable sports stadium/assembly hall type seat without armrests. The minimum seat centres for this chair is 460mm. Minimum standard platform rise required is 280mm.

#### Construction

The seat and backrest are moulded high density polyethylene.

### Type 62A seat upholstered insert

The Acromat type 62A seat is fitted with an upholstered seat & back insert to increase comfort & seating time. The minimum seat centres for this chair is 460mm. Minimum standard platform rise is 280mm.

#### Construction

The seat and backrest are moulded high density polyethylene. The inserts are woollen fabric over a 20mm foam covered timber backing, fastened to the plastic mouldings.

### Type 62B seat fully upholstered

The Acromat type 62B seat is a fully upholstered seat and back with thicker padding and increased comfort. The minimum seat centre for this chair is 460mm. Minimum standard platform rise is 280mm.

#### Construction

The seat and backrest consist of a high density polyethylene moulded shell with 20mm thick foam glued to the front surfaces and covered with a woollen fabric. The seat and back covers are fitted with zips for removal and cleaning.

### Type 63A seat upholstered insert with armrests

Similar construction to seat type 62A. Fitted with moulded armrest with or without a fabric-covered insert. The minimum seat centres for this chair is 500mm. Minimum standard platform rise is 280mm.

### Type 63B seat fully upholstered with armrests

Similar construction to seat type 62B. Fitted with moulded armrest with or without fabric-covered insert. The minimum seat centres for this chair is 500mm. Minimum standard platform rise is 280mm.

### Type 64 seat fully upholstered theatre-style seat & backrest with upholstered armrest

The Acromat type 64 seat is a comfortable lecture-room or theatre-type seat with armrests. The minimum seat centres for this chair is 500mm. Minimum standard platform rise required is 290mm.

#### Construction

The backrest consists of a high density polyethylene moulded shell with 20mm polyurethane foam glued to the front surface and fully covered with a woollen fabric. The seat is contoured laminated timber, covered with 35mm polyurethane foam and fully covered with a woollen fabric. The seat and back covers are fitted with zips for removal and cleaning.

#### Operation and Features

- > Chairs will be ganged in threes and twos.
- > The chair seat tilts to increase access.
- > A foot-controlled mechanism allows the seat to fold into the stored position.
- > Finish of chair frame is powder coat textured black.
- > To reduce weight, a gas strut is installed to counterbalance the seat when folding to the stored position.

### Acromat type 65 seat

The Acromat Type 65 seat is of generous proportions, and very comfortable. The Type 65 seat has a tall back and thick cushion seat. The minimum seat centres for this chair is 580. Minimum standard rise is 310mm. Minimum standard platform depth is 1000mm.

#### Construction

The backrest is constructed of high strength steel frame with deep contoured urethane foam, covered with the laminated fabric extending over a foam-covered back. The seat frame is totally encased with a thick urethane foam. The fabric cover has a zip closure if a new cover is required.

#### Operation and Features

- > Chairs will be ganged in threes and twos.
- > The backrest folds backwards for storage.
- > Finish of chair frame is powder coated textured black.

### Acromat type 66 seat

The Acromat type 66 seat is an upmarket luxurious theatre-style seat with armrests. The type 66 seat has a tall backrest and thick cushion seat. The minimum seat centres for this chair is 535mm. Minimum standard rise is 352mm. Minimum standard platform width is 1000mm.

#### Construction

The backrest consists of laminated timber with 35mm polyurethane foam and fully covered with a woollen fabric. The cover is produced with a panel style to define the shape. The seat is moulded foam over a steel frame and covered with a woollen fabric. The seat and back covers are fitted with zips for removal and cleaning.

*Operation and Features*

- > Chairs will be ganged in threes and twos.
- > The chair tilts automatically to increase access.
- > A foot-controlled mechanism allows the seat to fold into the stored position.
  
- > Finish of chair frame is powder coat textured black.
- > To reduce weight a gas strut is installed to counterbalance the seat when folding to the stored position.



**Writing Tablets**

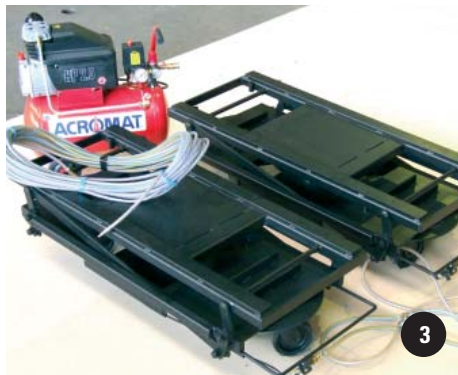
Writing tablets can be added to type 61, 62, 63, 64 and 66 seats. Minimum seat centres with writing tablet 570mm. Minimum standard platform rise is 290mm.

*Construction*

The writing tablet is attached to the seat support beam. The writing tablet is constructed from 20mm plastic or timber with a non-slip writing surface.

*Operation*

- > Writing tablet moves forwards and back to adjust writing position.
- > When not in use the writing tablet folds away behind the backrest.
- > The writing tablet folds with the seat when platforms are stored.



**1** Fabric side curtains

**2** Rear closure panel

**3** Air-lift trolleys

**4 and 5** Handrail trolleys

**6, 7 and 8** Mobile stairs in various positions and retracted

**9** Hydraulic lifting trolley



# HOW TO ESTIMATE SEATING CAPACITY

Allow approx. 15% reduction in seat quantity for aisleways. Check local regulations for access requirements.

This chart is a guide only based on 460mm per seat without armrest.

Acromat has found that some degree of customisation is usually necessary to suit individual building requirements and seating layouts.

Please contact Acromat Head Office for detailed layouts and confirmation of seat quantities.

	Length of Row	2800	3700	4600	5600	7400	14800	29500	36800
	Seats per Row	6 Seats	8 Seats	10 Seats	12 Seats	16 Seats	32 Seats	64 Seats	80 Seats
Number of Rows	3	18	24	30	36	48	96	192	240
	4	24	32	40	48	64	128	256	320
	5	30	40	50	60	80	160	320	400
	6	36	48	60	72	96	192	384	480
	7	42	56	70	84	112	224	448	560
	8	48	64	80	96	128	256	512	640
	9	-	72	90	108	144	288	576	720
	10	-	80	100	120	160	320	640	800
	11	-	88	110	132	176	352	704	880
	12	-	96	120	144	192	384	768	960
	15	-	-	-	180	240	480	960	1200
	20	-	-	-	240	320	640	1280	1600
	25	-	-	-	-	-	800	1600	2000
	30	-	-	-	-	-	960	1920	2400

## STANDARD DIMENSIONS FOR ESTIMATING

Mobile units - H may vary to suit trolley system

Add stored height of selected seat for overall height.

R and W may change depending on chair selection, site lines and seating comfort.

No. of Seat Rows	S10 W=760 D=1160		S20 W=840 D=1350		S60 W=840 D=1095		S80 W=1680 D=1935		S100 W=840 D=1095	R=100 Row 1 Rise=200
	E	H	E	H	E	H	E	H	E	H
3	1920	840	2180	945	2774	840	-	-	2774	400
4	2680	1120	3020	1260	3614	1120	3614	620	3614	500
5	3440	1400	3860	1575	4454	1400	-	-	4454	600
6	4200	1680	4700	1890	5294	1680	5294	930	5294	700
7	4960	1960	5540	2205	6134	1960	-	-	6134	800
8	5720	2240	6380	2520	6974	2240	6974	1240	6974	900
9	6480	2520	7220	2835	7814	2520	-	-	7814	1000
10	7240	2800	8060	3150	8654	2800	8654	1550	8654	1100
11	8000	3080	8900	3465	9494	3080	-	-	9494	1200
12	8760	3360	9740	3780	10334	3360	10334	1860	10334	1300
15	11040	4200	12260	4095	12854	4200	-	-	12854	1600
20	14840	5600	16460	4410	17054	5600	17054	2170	17054	2100
25	18640	7000	20660	4725	21254	7000	-	-	21254	2600
30	22440	8400	24860	5040	25454	8400	25454	2480	25454	3100

