





Library Shelving Design Manual



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Section 1 – PRODUCT INTRODUCTION

1.1 INTRODUCTION

Precision's Library Shelving is a cantilever, post based system designed to discretely display and store all forms of library content. Available in a wide range of heights, widths and depths allows full and efficient use of space and material storage. Being modular enables easy reconfiguration or addition. Units can be wall mounted, freestanding or mobile on castors.

An extensive range of accessories are available to solve any diverse library display and storage requirement.

- Posts
 Single or double faced welded RHS, available in a range of standard heights
- Wall Channel Folded steel U section
- Shelves Horizontal load-bearing shelves which clip into fully adjustable end plates
- Accessories
 A full range of accessories designed to extend the versatility of the system
- Adjustability The slotted posts and wall channel allow easy adjustment at 38.1mm increments
- Finishes and Colour

All steel components are finished in a standard range of colours. The colour application process commences with a five stage pre-treatment system to remove any foreign material and apply corrosion resistant solutions to the steel components. Each colour is applied as a powder, electro statically charged to provide adhesion prior to baking and final curing. After application the powder-coat is oven baked to 200 degrees celsius, providing an extremely hardwearing and aesthetic finish



1.2 PARAMETERS



The Precision Library shelving product has been designed to operate within the following standard parameters.

Floor

The floor should be of solid construction designed to accept loads imposed by the system. Installations on carpet or similar floor coverings should be mindful of the floor substrate below and that the floor covering will not compress in an uneven manner.

Loads

Individual loads should be stable and self supporting, with a maximum unit weight within the safe working recommendations.

Operating Conditions

Components and load data are based on dry internal applications.

Temperature Range

+3 degrees C to +40 degrees C

Note:

For applications that require operating parameters outside those indicated above, please contact Precision for technical guidance on your particular application.



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Section 2 – COMPONENT DESCRIPTIONS

2.1 ASSEMBLY DRAWINGS AND COMPONENT IDENTIFICATION

Wall Mounted



- 1 Wall Channel
- 2 Overslung Endplate

1 – Double Faced Post

3 - Overslung Endplate

2 – Centre Brace

4 - Upstand Shelf

3 - Upstand Shelf

Freestanding Double Sided







- 1 Double Faced Post
- 2 Centre Brace
- 3 Overslung Endplate
- 4 Upstand Shelf
- 5 Uptilt Endplate
- 6 Uptilt Shelf
- 7 Cross Brace
- 8 Castor





Accessories



- 1 Canopy Shelf
- 2 Underslung Endplate
- 3 CD / DVD Shelf
- 4 CD / DVD Display Shelf
- 5 CD / DVD Display Rack 2 Tier
- 6 CD / DVD Display Rack 4 Tier
- 7 Zigzag Shelf Display
- 8 Selecta Shelf
- 9 Magazine Shelf
- 10 Magazine Display Shelf 2 Tier
- 11 Magazine Display Shelf 3 Tier
- 12 Hanging Bag Rail
- 13 Pull Out Reference Shelf
- 14 Hinged Shelf

- 15 Browser Bin
- 16 Uptilt End Plates
- 17 Uptilt Shelf
- 18 Stayput Book Support
- 19 Bookshelf Indicator
- 20 Bookend
- 21 Slotted Shelf Endplate
- 22 Slotted Shelf Back
- 23 Slotted Shelf
- 24 Slotted Shelf Divider
- 25 Magazine Waterfall Shelf 6 Tier
- 26 End Panel Plain
- 27 End Panel Display
- 28 End Panel Display Shelf



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2.2 COMPONENT DESCRIPTIONS

2.2.1 POSTS SINGLE FACED

Single faced posts are a rectangular tube section, with welded base, slotted to accept shelf end plates or accessories. Posts are available in a variety of heights.

Material

51mm x 35mm x 2.0mm thick steel; Molded plastic end caps.

Finish

Powder coated

Sizes

Standard heights are 1205mm, 1510mm, 1815mm, 1965mm, 2120mm and 2270mm; Depth (overall base) is 312mm.

Adjustability

One 35mm face is slotted at 38.1mm or 1 1/2", intervals (pitch)

| Code | Description | Weight (kg) |
|-------|----------------------------------|-------------|
| 92702 | Library post single faced 1205mm | 3.91 |
| 92704 | Library post single faced 1510mm | 4.73 |
| 92706 | Library post single faced 1815mm | 5.67 |
| 92707 | Library post single faced 1965mm | 6.07 |
| 92708 | Library post single faced 2120mm | 6.38 |
| 92709 | Library post single faced 2270mm | 6.87 |
| | | |

2.2.2 POSTS DOUBLE FACED

Double faced posts are a rectangular tube section, with welded base, slotted to accept shelf end plates or accessories. Posts are available in a variety of heights.

Material

51mm x 35mm x 2.0mm thick steel; Molded plastic end caps.

Finish

Powder coated

Sizes

Standard heights are 1205mm, 1510mm, 1815mm, 1965mm, 2120mm and 2270mm; Depth (overall base) is 565mm.

Adjustability

Both 35mm faces are slotted at 38.1mm, or 1 1/2", intervals (pitch)



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| Code | Description | Weight (kg) |
|-------|----------------------------------|-------------|
| 92712 | Library post double faced 1205mm | 4.38 |
| 92714 | Library post double faced 1510mm | 5.42 |
| 92716 | Library post double faced 1815mm | 6.28 |
| 92717 | Library post double faced 1965mm | 6.65 |
| 92718 | Library post double faced 2120mm | 7.06 |
| 92719 | Library post double faced 2270mm | 7.50 |



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2.2.3 CENTRE BRACE

Centre braces are fixed horizontally between posts using corresponding lugs and slots to create correct modular spacing and provide secure structural support. 2 x centre braces are required for every bay. Combination centre brace / tie strut units allow for the connection of centre braces to existing tie strut constructed shelving

Material

1.2mm cold rolled mild steel

1.6mm cold rolled mild steel brackets

Finish

Powder coated



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| Code | Description | Weight (kg) |
|-------|--|-------------|
| 92720 | Centre brace 600mm (nominal) | 1.14 |
| 92721 | Centre brace 900mm (nominal) | 1.63 |
| 92722 | Centre brace / Tie Strut 600mm (nominal) | 1.14 |
| 92723 | Centre brace / Tie Strut 600mm (nominal) | 1.63 |

2.2.4 WALL FIXING BRACKETS

Wall fixing brackets are required to securely attach single faced freestanding bays to the wall behind. 1 x bracket required for every bay

Material

2.0mm cold rolled mild steel

Finish

Powder coated

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| Code | Description | Weight (kg) |
|-------|---------------------|-------------|
| 92545 | Wall fixing bracket | 0.1 |

2.2.5 WALL CHANNEL

Wall channels are a folded 'U' section slotted to accept shelf end plates or accessories. These are secured to walls as an alternative to single faced post units

Material

| 2.0mm cold rolled mild steel | Ĭ | |
|--|--------|--|
| Finish Powdercoated | 0 0 | |
| Sizes Standard height is 2438mm Depth is 13mm | 0 - 0 | |
| Adjustability Slotted at 38.1mm, or 1 1/2", intervals (pitch) | | |
| | | |

| Code | Description | Weight (kg) |
|-------|---------------------|-------------|
| 92443 | Wall channel 2438mm | 2.04 |



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2.2.6 CROSS BRACE FOR CASTOR BAY

A pair of braces is required at the base of every mobile shelving unit which. These are attached to diagonally opposite post feet and are bolted in the centre. Recommended maximum post height for mobile units is 1510mm.

Material

25mm x 3.0mm flat steel

Finish

Powder coated

| Code | Description | Weight (kg) |
|-------|------------------------------|-------------|
| 92549 | Cross brace for 900mm module | 1.21 |

2.2.7 CASTOR - PLAIN

75mm diameter plain castor to convert static shelving bays to mobile. Adjustable levelling feet are removed from bottom of post and the castors are attached utilising the vacated nutsert using an M10 x 40mm bolt.

Finish

Black plastic wheel Zinc plated body



| Code | Description | Weight (kg) |
|-------|-------------------------------|-------------|
| 92563 | Castor plain 75mm with fixing | 0.32 |

2.2.8 CASTOR - BRAKED

75mm diameter plain castor to convert static shelving bays to mobile. Adjustable levelling feet are removed from bottom of post and the castors are attached utilising the vacated nutsert using an M10 x 40mm bolt. Castor has an integrated brake to prevent movement of unit from desired location.

Finish

Black plastic wheel Zinc plated body



| Code | Description | Weight (kg) |
|-------|--------------------------------|-------------|
| 92564 | Castor braked 75mm with fixing | 0.38 |



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2.2.9 UPSTAND SHELVES

Standard flat library shelf with 27.5mm rear upstand

Material

0.75mm high tensile cold rolled mild steel

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Finish Powder coated

Sizes

Standard widths are 600mm and 900mm Standard depths are 203mm, 254mm, 305mm and 381mm

Adjustability

To 38.1mm, or 1 1/2", intervals (pitch), with end plates or brackets



| Code | Description | Weight (kg) |
|-------|-----------------------------|-------------|
| 92400 | Upstand shelf 600mm x 203mm | 1.01 |
| 92401 | Upstand shelf 600mm x 254mm | 1.29 |
| 92402 | Upstand shelf 600mm x 305mm | 1.49 |
| 92403 | Upstand shelf 600mm x 381mm | 1.78 |
| 92404 | Upstand shelf 900mm x 203mm | 1.62 |
| 92405 | Upstand shelf 900mm x 254mm | 1.91 |
| 92406 | Upstand shelf 900mm x 305mm | 2.19 |
| 92407 | Upstand shelf 900mm x 381mm | 2.62 |

2.2.10 OVERSLUNG ENDPLATES

Overslung endplates are used to hold upstand shelves in a horizontal position. The endplates sit above the finished surface of the shelf and act as a book end stops. One pair of end plates required per shelf

Material

1.60mm cold rolled mild steel

Finish

Powder coated

Adjustability

To 38.1mm, or 1 1/2", intervals (pitch).



| Code | Description | Weight (kg) |
|-------|---------------------------------|-------------|
| 92543 | Overslung endplate 203mm (pair) | 0.69 |
| 92544 | Overslung endplate 254mm (pair) | 0.85 |
| 92546 | Overslung endplate 305mm (pair) | 1.02 |
| 92547 | Overslung endplate 381mm (pair) | 1.28 |



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2.2.11 QUADRANT PLATES

Used to convert flat upstand shelves into angled display units. The brackets allow for multi-positional shelf settings of 45 degrees, 65 degrees and 85 degrees below the standard horizontal setting. One pair of end plates required per shelf

Material

1.60mm cold rolled mild steel

Finish

Powder coated

Adjustability

To 38.1mm, or 1 1/2", intervals (pitch)



2.2.12 CANOPY SHELVES

A flat plain shelf positioned at the top of a shelving unit to protect items on below shelves from dust and other matter. Shelves are notched to fit snugly around post and wall channel profiles. Used with underslung endplates of corresponding size (ordered separately)

Material

Single faced shelves 0.75mm high tensile cold rolled mild steel Double faced shelves 0.95mm high tensile cold rolled mild steel

Finish

Powder coated

Sizes

Standard widths are 600mm and 900mm Standard depths are 286mm and 337mm

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| Code | Description | Weight (kg) |
|-------|---|-------------|
| 92408 | Canopy shelf single faced 600mm x 286mm | 1.33 |
| 92409 | Canopy shelf single faced 600mm x 337mm | 1.52 |
| 92411 | Canopy shelf single faced 900mm x 286mm | 1.96 |
| 92412 | Canopy shelf single faced 900mm x 337mm | 2.24 |
| 92565 | Canopy shelf double faced 900mm x 572mm (286/286) | 4.70 |
| 92566 | Canopy shelf double faced 900mm x 674mm (337/337) | 5.46 |

2.2.13 UNDERSLUNG ENDPLATES

Use for canopy shelves. One pair of end plates required per single faced shelf, two pair required per double faced shelf.

Material

1.60mm cold rolled mild steel

Finish



| Code | Description | Weight (kg) |
|-------|----------------------------------|-------------|
| 92553 | Underslung endplate 254mm (pair) | 0.49 |
| 92554 | Underslung endplate 305mm (pair) | 0.60 |
| 92555 | Underslung endplate 381mm (pair) | 0.73 |



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2.2.14 UPTILT SHELVES

Shelf with 100mm rear upstand. Generally located at the bottom of a shelving unit, on uptilt endplates (ordered separately), to provide easier viewing and access to lower level displays.

Material

0.75mm high tensile cold rolled mild steel

Finish

Powder coated

Sizes

Standard width is 900mm Standard depths are 203mm, 254mm and 305mm

Adjustability

To 38.1mm, or 1 1/2", intervals (pitch), with end plates

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| Code | Description | Weight (kg) |
|-------|------------------------------------|-------------|
| 92567 | Uptilt shelf 900mm x 203mm x 100mm | 2.01 |
| 92568 | Uptilt shelf 900mm x 254mm x 100mm | 2.30 |
| 92569 | Uptilt shelf 900mm x 305mm x 100mm | 2.60 |

2.2.15 UPTILT ENDPLATES

Angled endplates set to a 15 degree pitch, used with uptilt shelves. One pair of end plates required per shelf

Material

1.60mm cold rolled mild steel

Finish

Powder coated

Adjustability

To 38.1mm, or 1 1/2", intervals (pitch).

| Code | Description | Weight (kg) |
|-------|--|-------------|
| 92556 | Uptilt endplate 15 degree 203mm (pair) | 0.97 |
| 92557 | Uptilt endplate 15 degree 254mm (pair) | 1.13 |
| 92558 | Uptilt endplate 15 degree 305mm (pair) | 1.29 |

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2.2.16 SLOTTED SHELF

A slotted shelf which is able to accept steel shelf dividers (when used with slotted shelf back). Slots punched to 25mm adjustments.

Material

0.75mm high tensile cold rolled mild steel

Finish

Powder coated

Adjustability

To 38.1mm, or 1 1/2", intervals (pitch).



| Code | Description | Weight (kg) |
|-------|-----------------------------|-------------|
| 92416 | Slotted shelf 900mm x 305mm | 2.07 |



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2.2.17 SLOTTED SHELF BACK

A slotted back panel which is used in conjunction with a slotted shelf. Slots punched to 25mm adjustments.

Material

0.75mm high tensile cold rolled mild steel

Finish

Powder coated

| Code | Description | Weight (kg) |
|-------|----------------------------------|-------------|
| 92417 | Slotted shelf back 900mm x 205mm | 1.27 |

2.2.18 SLOTTED SHELF ENDPLATES

Endplates to match the overall height of the slotted shelf unit. One pair of end plates required per shelf

Material

0.75mm high tensile cold rolled mild steel

Finish

Powder coated

| Code | Description | Weight (kg) |
|-------|---------------------------------------|-------------|
| 92534 | Slotted shelf end plates 305mm (pair) | 1.600 |

2.2.19 SLOTTED SHELF DIVIDER

Adjustable steel divider. Order quantity as required

Material

0.75mm high tensile cold rolled mild steel

Finish

Powder coated

| Code | Description | Weight (kg) |
|-------|-----------------------|-------------|
| 92418 | Slotted shelf divider | 0.39 |

2.2.20 STAYPUT BOOK SUPPORT

Profiled book support with 2 x anti-slip rubber feet

Material

1.20mm cold rolled mild steel

Sizes

127mm wide x 111mm deep x 165mm high

Finish

| Code | Description | Weight (kg) |
|-------|-----------------------------|-------------|
| 92469 | Stayput book support (each) | 0.30 |













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2.2.21 BOOKEND

L shaped bookend

Material

0.95mm high tensile cold rolled mild steel

.

Sizes 175mm wide x 150mm deep x 200mm high

Finish

Powder coated



2.2.22 PULL OUT REFERENCE SHELF

A pull out work surface that can be incorporated into a shelving layout. Each kit includes a pull out shelf, standard upstand shelf and endplates

Material

0.75mm high tensile cold rolled mild steel

Finish

Powder coated



| Code | Description | Weight (kg) |
|-------|---------------------------------------|-------------|
| 92516 | Pullout reference shelf 900mm x 305mm | 7.000 |

2.2.23 HINGED SHELF

This kit provides for the display of current magazines and periodicals on a 'lift up' sloping shelf, whilst storing back issues on a flat shelf behind. Each kit includes a hinged sloping shelf, a flat storage shelf and a special pair of endplates. Note that allowance is required for a shelf and endplates to the base of each periodical run.

Material

0.75mm high tensile cold rolled mild steel shelves 1.60mm cold rolled mild steel endplates

Finish



| Code | Description | Weight (kg) |
|-------|----------------------------|-------------|
| 92414 | Hinged shelf 900mm x 305mm | 5.06 |



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2.2.24 MAGAZINE SHELF

A fixed angle shelf with extra high upstand for display of magazines. Used with quadrant plates 92509 (ordered separately).

Material

0.75mm high tensile cold rolled mild steel

Finish

Powder coated



| Code | Description | Weight (kg) |
|-------|--|-------------|
| 92551 | Magazine shelf 900mm x 305mm x 100mm (upstand) | 2.72 |

2.2.25 MAGAZINE WATERFALL SHELF

Multiple vertical shelves with acrylic fronts for mass display of magazines. Available as 3 tier or 6 tier options.

Material

0.95mm high tensile cold rolled mild steel shelves

1.60mm cold rolled mild steel brackets

5.0mm acrylic shelf fronts

Finish Powder coated shelves and brackets Clear acrylic shelf fronts



| Code | Description | Weight (kg) |
|-------|---|-------------|
| 92570 | Magazine waterfall unit 900mm wide – 3 tier | 11.98 |
| 92571 | Magazine waterfall unit 900mm wide – 6 tier | 23.28 |

2.2.26 MAGAZINE DISPLAY SHELF

A fixed multi-tiered angled shelf unit for the display of magazines. Available as 2 tier or 3 tier options.

Material

0.95mm high tensile cold rolled mild steel shelves

1.60mm cold rolled mild steel brackets

Finish



| Code | Description | Weight (kg) |
|-------|--|-------------|
| 92572 | Magazine display shelf 900mm wide – 2 tier | 7.06 |
| 92573 | Magazine display shelf 900mm wide – 3 tier | 10.89 |



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2.2.27 SELECTA SHELF

A divisible (50mm centres) upstand shelf that allows the vertical display of magazines and periodicals. Clear acrylic dividers are positioned at a 45 degree angle, providing effective and efficient display.

Material

0.75mm high tensile cold rolled mild steel shelves 1.20mm cold rolled mild steel endplates

3.00mm acrylic dividers

Finish

Powder coated shelf unit Clear acrylic dividers



| Code | Description | Weight (kg) |
|-------|-------------------------------------|-------------|
| 92515 | Selecta shelf 900mm with 5 dividers | 4.34 |
| 92538 | Selecta shelf 900mm NO dividers | 3.46 |

2.2.28 CD/ DVD SHELF

An angled shelf unit for the display (spine out) of CD's or DVD's. The back slope helps to keep the product on the shelf

Material

0.95mm high tensile cold rolled mild steel shelves 1.20mm cold rolled mild steel endplates Finish Powder coated

| Code | Description | Weight (kg) |
|-------|---------------------------------------|-------------|
| 92523 | CD/ DVD shelf 600mm wide x 150mm deep | 2.17 |
| 92517 | CD/ DVD shelf 900mm wide x 150mm deep | 2.89 |

2.2.29 VIDEO SHELF

An angled shelf unit for the display (spine out) of video cassettes. The back slope helps to keep the product on the shelf

Material

0.95mm high tensile cold rolled mild steel shelves

1.20mm cold rolled mild steel endplates

Finish



| Code | Description | Weight (kg) |
|-------|-------------------------------------|-------------|
| 92524 | Video shelf 600mm wide x 100mm deep | 2.17 |
| 92521 | Video shelf 900mm wide x 100mm deep | 2.89 |



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2.2.30 CD/ DVD DISPLAY SHELF

An angle display shelf with mid point horizontal ledge to provide 2 levels of CD or DVD display (cover face out). Part number includes Quadrant end plates.

Material

0.75mm high tensile cold rolled mild steel shelf 1.60mm cold rolled mild steel endplates

Finish

Powder coated



| 92574 CD/ DVD display shelf 900mm x 305mm | 2.54 |
|---|------|

2.2.31 CD/ DVD DISPLAY RACKS

Compartmented trays for the display and storage of mass CD's or DVD's (cover face out). Combining 1, 2 or 4 tier units in a display creates a waterfall effect which optimises visibility and accessibility

Material

0.95mm high tensile cold rolled mild steel shelves 1.60mm cold rolled mild steel endplates

Finish

Powder coated



| Code | Description | Weight (kg) |
|-------|-------------------------------------|-------------|
| 92575 | CD/ DVD display rack 900mm – 1 tier | 2.82 |
| 92576 | CD/ DVD display rack 900mm – 2 tier | 5.24 |
| 92577 | CD/ DVD display rack 900mm – 4 tier | 11.14 |

2.2.32 CD/ DVD DISPLAY FRAME

A freestanding 4 tier compartmented unit for the display and storage of mass CD's or DVD's (cover face out).

Material

- 2.00mm and 1.20mm tube frame
- 0.95mm high tensile cold rolled mild steel shelves
- 1.60mm cold rolled mild steel endplates

Finish



| Code | Description | Weight (kg) |
|-------|---|-------------|
| 92777 | CD/ DVD display frame 4 tier 1050mm high x 1260mm wide x 535mm deep | 28.50 |



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2.2.33 BROWSER BINS

A bin with adjustable dividers for the front facing display and storage of picture books. Used with 305mm overslung endplates 92546 (ordered separately).

Material

1.20mm cold rolled mild steel

Finish

Powder coated



| Code | Description | Weight (kg) |
|-------|---|-------------|
| 92579 | Browser bin 600mm x 305mm x 120mm high (back) x 80mm high (front) – with 2 dividers | 3.65 |
| 92520 | Browser bin 900mm x 305mm x 120mm high (back) x 80mm high (front) – with 3 dividers | 5.41 |
| 92580 | Browser bin dividers (extra) | 0.21 |

2.2.34 HANGING BAG RAIL

For storage of 'coat hanger' style hanging storage bags. Used with 203mm overslung endplates 92543 (ordered separately).

Material

9.50mm diameter steel tube rail 0.95mm cold rolled mild steel brackets



Finish

Powder coated

| Code | Description | Weight (kg) |
|-------|------------------------|-------------|
| 92514 | Hanging bag rail 900mm | 0.67 |

2.2.35 ZIG-ZAG SHELF DISPLAY

This unit sits onto any standard 900mm wide flat upstand shelf and provides an attractive display for books. Ideal for new releases.

Material

1.60mm cold rolled mild steel

Finish



| Code | Description | Weight (kg) |
|-------|-----------------------|-------------|
| 92518 | Zig-Zag Display 900mm | 2.43 |



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2.2.36 BOOKSHELF INDICATOR

Bookshelf indicators sit over the front edge of a standard flat library shelf and used to separate library categories. Applied vinyl graphics can be added to the front spine to indicate specific categories and ranges (Alphabetic or dewy decimal). Graphics are not included as part of the standard product.

Material

0.95mm high tensile cold rolled mild steel

Finish

Powder coated



| Code | Description | Weight (kg) |
|-------|--|-------------|
| 92581 | Book shelf indicator 190mm high x 150mm deep x 40mm wide | 0.59 |

2.2.37 FLOOR FIXING BRACKETS

Securely fix double faced freestanding shelving units using this bracket attached to the centre of each post then fixed into floor below (refer to assembly instructions for further details). Brackets sold in pairs.

Material

2.00mm cold rolled mild steel

Finish

Powder coated

| Code | Description | Weight (kg) |
|-------|-----------------------------|-------------|
| 92582 | Floor fixing bracket (pair) | 0.34 |

2.2.38 OVERHEAD BRACES

Located into the top of library posts, and used in conjunction with overhead splices, the overhead braces tie runs of freestanding shelving together, providing protection from tipping over during seismic activity. Single faced braces are used on the end shelving units and the double faced braces are used on intermediate runs (refer to assembly instructions for further details).

Material

1.60mm and 2.00mm cold rolled mild steel

Finish



| Code | Description | Weight (kg) |
|-------|-----------------------------------|-------------|
| 92583 | Overhead 'L' brace (single faced) | 2.36 |
| 92584 | Overhead 'T' brace (double faced) | 3.37 |



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2.2.39 OVERHEAD SPLICES

These splices span between the overhead braces and bolted into place, tying runs of freestanding shelving together. Select the length of splice to best suit required aisle width. (refer to assembly instructions for further details).

Material

2.00mm cold rolled mild steel

Sizes

1450mm

To suit aisle width (posts centre to centre) range of 1150mm to 1650mm at 50mm increments

1800mm

To suit aisle width (posts centre to centre) range of 1500mm to 2000mm at 50mm increments

Finish

Powder coated



| Code | Description | Weight (kg) |
|-------|------------------------|-------------|
| 92585 | Overhead splice 1450mm | 5.02 |
| 92586 | Overhead splice 1800mm | 6.27 |

2.2.40 SEISMIC CROSS BRACES

These optional braces are supplied in pairs and span diagonally, vertically, between posts to provide further lateral rigidity within shelving units. Please refer to the '3.2.3 Secure Fixing' section within this manual for recommended positions of these cross braces. Each kit comprises of 2 x cross braces, 4 x mounting brackets, 2 x turn buckles and all fixings

Note: Seismic cross braces can not be used on end posts that have end panels attached.

Material

2.00mm cold rolled mild steel

Sizes

To suit standard post heights

Finish

Powder coated braces and brackets Galvanised turn buckle



| Code | Description | Weight (kg) |
|-------|--|-------------|
| 92780 | Seismic cross brace kit for 1205mm posts | 0.78 |
| 92782 | Seismic cross brace kit for 1510mm posts | 0.91 |
| 92784 | Seismic cross brace kit for 1815mm posts | 1.06 |
| 92785 | Seismic cross brace kit for 1965mm posts | 1.14 |
| 92786 | Seismic cross brace kit for 2120mm posts | 1.23 |
| 92787 | Seismic cross brace kit for 2270mm posts | 1.31 |



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2.2.41 END PANELS - PLAIN

Attached to the end of shelving runs, plain end panels are used to define library sections, identify aisle contents, or simply to provide aesthetic relief.

Material

0.95mm high tensile cold rolled mild steel

Sizes

1200mm high x 670mm wide (305mm DF) 1505mm high x 670mm wide (305mm DF) 1810mm high x 670mm wide (305mm DF) 1960mm high x 670mm wide (305mm DF) 2115mm high x 670mm wide (305mm DF) 2265mm high x 670mm wide (305mm DF)

Finish

Powder coated



| Code | Description | Weight (kg) |
|-------|---|-------------|
| 92728 | End panel plain 1200mm x 670mm (305mm double faced) | 7.64 |
| 92730 | End panel plain 1505mm x 670mm (305mm double faced) | 9.54 |
| 92732 | End panel plain 1810mm x 670mm (305mm double faced) | 11.44 |
| 92733 | End panel plain 1960mm x 670mm (305mm double faced) | 12.39 |
| 92734 | End panel plain 2115mm x 670mm (305mm double faced) | 13.35 |
| 92735 | End panel plain 2265mm x 670mm (305mm double faced) | 14.30 |
| | | |

2.2.42 END PANELS - DISPLAY

Attached to the end of shelving runs, display end panels are used to define library sections, identify aisle contents, display material, or simply to provide aesthetic relief. The vertical slots are designed to hold standard 600mm wide shelving and accessories, whilst the circular punchings accommodate angled display shelves.

Material

0.95mm high tensile cold rolled mild steel

Sizes

1200mm high x 670mm wide (305mm DF) 1505mm high x 670mm wide (305mm DF) 1810mm high x 670mm wide (305mm DF) 1960mm high x 670mm wide (305mm DF) 2115mm high x 670mm wide (305mm DF) 2265mm high x 670mm wide (305mm DF)

Finish



| Code | Description | Weight (kg) |
|-------|---|-------------|
| 92738 | End panel display 1200mm x 670mm (305mm double faced) | 7.60 |
| 92740 | End panel display 1505mm x 670mm (305mm double faced) | 9.47 |
| 92742 | End panel display 1810mm x 670mm (305mm double faced) | 11.38 |
| 92743 | End panel display 1960mm x 670mm (305mm double faced) | 12.33 |
| 92744 | End panel display 2115mm x 670mm (305mm double faced) | 13.29 |
| 92745 | End panel display 2265mm x 670mm (305mm double faced) | 14.23 |



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2.2.43 END PANEL DISPLAY SHELF



| Code | Description | Weight (kg) |
|-------|------------------------------------|-------------|
| 92598 | End panel display shelf 190mm wide | 0.62 |
| 92597 | End panel display shelf 340mm wide | 1.10 |

2.2.44 END PANEL FIXING KIT

These kits comprise of 2 types of brackets to fix timber or laminated panels to the end of shelving runs. The top brackets slot into the posts utilising the spare outer centre brace slots; the bottom brackets hook over the post base RHS. The panels are then screw fixed from the inside using the 2 holes in each bracket.

Material

1.20mm cold rolled mild steel

Finish

Powder coa

| coated | | |
|--------|---|-------------|
| | | |
| Code | Description | Weight (kg) |
| 92746 | End panel fixing kit for double faced panels | 0.26 |
| 92775 | End panel fixing kit for single faced panels – left hand | 0.13 |
| 92776 | End panel fixing kit for single faced panels – right hand | 0.13 |

2.2.45 RANGE LABEL HOLDER

A two way label holder that can be fixed to the ends of the shelving runs to identify the contents held within the run. The holders slot into the spare outer centre brace slots and can also be used when end panels are installed to the runs.

Card size is 125mm wide x 65mm high

Material

0.75mm high tensile cold rolled mild steel

Finish

| Code | Description | Weight (kg) |
|-------|--------------------|-------------|
| 92771 | Range label holder | 0.62 |





SECTION 3 – DESIGNERS REFERENCE

3.1 DEFINITIONS

To eliminate possible confusion when describing or specifying library shelving installations, the following definitions should be used. These apply to all types of shelving installations.

A shelving **<u>Bay</u>** describes the unit of modularity in the left-to-right (L-R) plane.

A <u>Unit</u> describes the collective number of bays joined together, or overall length of shelving required. *e.g.* 'The 3 units of library shelving are all to be 3 x 900mm bays long'

All dimensions should be as given below:

Dimensions in the L-R plane of the unit are expressed as Length or Width

e.g. W = Bay width

L = Unit length

Dimensions in the front-to-back (F-B) plane of the unit are expressed as <u>Depth</u>. Dimensions in the vertical plane are expressed as <u>Height</u> and are relative to the floor level.

e.g. D = Unit depth

H = Unit height

Aisles are the clear distance between shelving units and is the space available for passage

<u>Vertical Clear Entry</u> is the distance between the top surface of one shelf and the underside of the next shelf above. This dimension will be the centre-to-centre spacing of the shelves less the 25.4mm vertical height of the shelf flange.





The following definitions describe the most frequently types of unit:

<u>Wall mounted units</u> comprise of slotted channel fixed to wall, at required centres, with shelving and accessories hanging off one side only

<u>Single faced units</u> comprise of freestanding post and tie strut frames with shelving and accessories hanging off one sides only. Our recommendation is that all single faced units are restrained back to walls.

Double faced units comprise of freestanding post and tie strut frames with shelving and accessories hanging off both sides.





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THIS WAY UP

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38.1

3.2 GENERAL LAYOUT

3.2.1 WALL MOUNTED SHELVING

3.2.1.1 Wall channel dimensions

2438mm high x 35mm wide x 13mm deep 20mm high x 4.5mm wide slots @ 38.1mm centres 5.5mm diameter countersunk fixing holes at 76.2mm centres



Centre to centre (Y) 903mm or 603mm





900mm module

- First bay (X) 938mm
- Every additional bay (Y) 903mm

600mm module

- First bay (X) 638mm
- Every additional bay (Y) 603mm





41.5

2438

76.2



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3.2.2 FREESTANDING LIBRARY SHELVING

3.2.2.1 Post dimensions

Heights, as published, are overall height of post and include base, leveling foot (fully inserted) and plastic top cap

Base dimension

- Single faced 312mm
- Double faced 565mm
- Post section is 51mm x 35mm
- 19mm high x 4.8mm wide slots @ 38.1mm centres

3.2.2.2 Bay dimensions

• Centre to centre (Y) 903mm or 603mm

3.2.2.3 Overall dimensions

- 900mm module First bay (X) – 938mm
 Every additional bay (Y) – 903mm
- 600mm module
 First bay (X) 638mm
 Every additional bay (Y) 603mm







3.2.3 SECURE FIXING

3.2.3.1 New Zealand standards

NZS4104:1994, Seismic Restraint of Building Contents recommends that any fixture over the height of 1200mm be suitably restrained to protect against tipping over.

3.2.3.2 Wall mounted shelving

Must be securely fixed in accordance with the Precision Library shelving Installation manual.

3.2.3.3 Single sided freestanding shelving

Precision recommends that all single sided freestanding shelving be fixed back to the wall. A centrally located wall fixing bracket is located over the top tie strut and fixed to wall in accordance with the Precision Library shelving Installation manual.



3.2.3.4 Double sided freestanding shelving

Precision recommends that all double sided freestanding shelving be secured using one (or both) of two methods:

1. In accordance with the Precision Library shelving Installation manual, floor fixing brackets can be attached to the base of each upright then fixed to the floor



2. Overhead bracing is designed to connect runs of library shelving together to become one stable structure in the

unlikely event of seismic activity. Overhead bracing should span between shelving runs every two bays.





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3. For additional lateral rigidity, especially during seismic activity, Precision recommends the inclusion of seismic cross braces between shelving bays. One pair should be installed to every 3rd bay of the library shelving run, as per example shown below.



Plan



Elevation

Note: seismic cross braces can not be used on end posts that have end panels attached.

3.2.4 FLOOR QUALITY

A careful study of the floor and its loading capability should be carried out by the customer to ensure suitability for the proposed installation

3.2.5 STORAGE CAPACITY

The following charts give the maximum amount of storage height available for any given combination of shelves on any post height. For example, if you require a post with maximum height of 1510mm and four shelves, the maximum amount of storage height available will be 1365mm. These charts have been calculated using a canopy shelf in position. Storage height would increase if canopy is not used.

| Number o Lealess Post heiaht | f Shelves | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------------------------------|--------------------------------|------|------|------|------|------|------|------|------|
| 1205mm | bu bu | 1055 | 1030 | 1005 | - | - | - | - | - |
| 1510mm | f filir e (m | - | 1335 | 1310 | 1285 | 1260 | - | - | - |
| 1815mm | tal amount o ight available | - | - | 1615 | 1590 | 1565 | 1540 | - | - |
| 1965mm | | - | - | 1765 | 1740 | 1715 | 1690 | 1665 | - |
| 2120mm | | - | - | - | 1895 | 1870 | 1845 | 1820 | - |
| 2270mm | To | - | - | - | 2045 | 2020 | 1995 | 1970 | 1945 |



3.3 LOAD INFORMATION

3.3.1 GENERAL

The following load information shows the maximum allowable shelf loads and maximum allowable bay loads. All load information has been tested in accordance with AS2273-1979, Australian Standard for Steel Library Shelving

3.3.2 SHELF LOADS

The range of shelves, inclusive of both 600mm and 900mm width and their respective available depths, have been tested and rated in accordance with AS2273-1979 at a load bearing capacity of 50kg. Where the load bearing capacity is required to exceed the rated 50kg, please refer your requirements to our technical department.

3.3.3 BAY LOADS

| Legless Post Height (mm) | Bay Style | | | | | | | |
|-----------------------------------|-------------------|-------------------|-----------------------------------|--------------|----------|--|--|--|
| | Single Faced Maxi | imum Loading (kg) | Double Faced Maximum Loading (kg) | | | | | |
| | Restrained | Uprostrained | Restrained | Uprostrained | 'Out of | | | |
| | | Unrestrained | | Unrestrained | Balance' | | | |
| 1205 | 400 | 400 | 600 | 600 | 400 | | | |
| 1510 | 400 | 290 | 600 | 600 | 290 | | | |
| 1815 | 400 | 200 | 600 | 600 | 200 | | | |
| 1965 | 400 | 160 | 600 | 600 | 160 | | | |
| 2120 | 400 | 150 | 600 | 600 | 150 | | | |
| 2270 | 400 | 120 | 600 | 600 | 120 | | | |

The bay load ratings are dependant on size, layout and method of restraint.

Note! 'Out of balance' bay load refers to the maximum variation in load per face of the bay e.g. for a fully loaded 2270 Double Faced bay, the loading per face should in the worst case be 360 and 240 respectively.

3.4 STANDARD BAY CONSTRUCTION TIMES

| Description | Unit of Measure | Estimated Labour |
|--|-----------------|------------------|
| Freestanding single faced bay | Per bay | 20 min |
| Freestanding double faced bay | Per bay | 30 min |
| Wall mounted | Per bay | 30 min |
| Battens for wall mounted (if required) | Per bay | 15 min |
| Shelves and endplates | Per set | 1 min |
| Sloping shelves | Per set | 3 min |
| End panels | Each | 10 min |
| Accessories - small | Each | 10 min |
| Accessories – large | Each | 15 min |
| Overhead bracing | Each | 10 min |
| Wall fixing brackets | Each | 5 min |
| Floor fixing brackets | Each | 10 min |
| Loading in | Single bay | 5 min |
| Rubbish removal | Single bay | 5 min |