GLASS OPTIONS
DESIGN GUIDELINES

GLAZED INTERNAL PARTITIONS

The following information has been supplied by the Glass Association of New Zealand (GANZ).

Internal partitions are specialised framing systems incorporating a range of infills such as glass. Most systems use aluminium extrusions, which can incorporate gaskets, wedges and blocking similar to exterior aluminium joinery, but without the concerns of weather-tightness. Some have unique features suitable for interior design, which normally involves supporting the glass under low internal pressures and human impact.

Glass standards and requirements

The New Zealand Building Code references Glazing in Buildings NZS 4223: Part 1:1985 - Glass Selection and Glazing, and Part 3:1999 Human Impact Safety Requirements, as the acceptable solution compliance documents (AS1).

Glass design

Glass design for internal partitions is covered in NZS 4223 Part 3:1999, Clause 311.
This clause defines: area and glass thickness tables for:

- Four edge support in both doors and side panels
- Four edge support in other areas
- Top edge unframed
- Side edges unframed or silicone butt jointed up to 3 metres in height.
- Manifestation requirements

GANZ members can advise on the effect on glass thickness, type and cost of various framing types and spacing.

Framing

NZS 4223 Part 3:1999 defines containment of glass in 303.2 and requires glass to be installed to meet the edge cover requirements of table 25 and 27 of Part 1:1985. For glass to be considered as framed minimum framing rigidity requirements are set out in Appendix 3.C. NZS 4223:Part 1:2008 provides minimum glazing dimensions and minimum edge cover, the key data is abridged in Table 1.

Table 1

Glass thickness (mm)	Minimum edge cover	Minimum edge clearance	Total rebate depth (mm)
6	6	4	10
8	8	5	13
10	8	5	13
12	9	6	15

POTTER
INTERIOR SYSTEMS

GLASS OPTIONS

DESIGN GUIDELINES

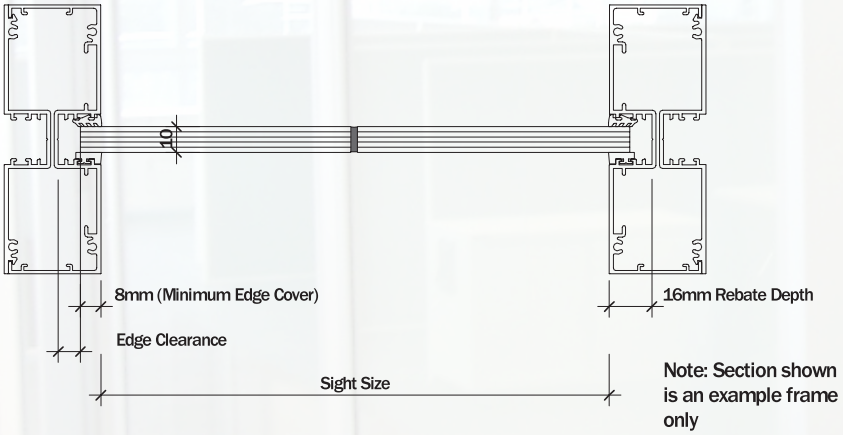
GLAZED INTERNAL PARTITIONS

Partition frame design

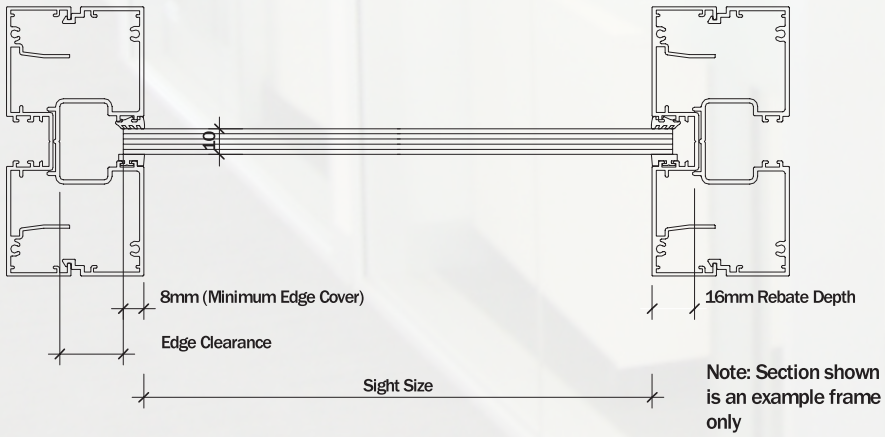
Many partition systems have removable beads and adequate pocket depth to get both the edge cover and edge clearance required. However some systems with fixed pockets on two or more sides require “shuffle” glazing and the edge clearance must be increased to install the glass. As the edge cover must be less than half the rebate depth in this system, this often decreases the edge cover below the allowable limits of the glass thickness.

As illustrated in Detail 1 & 2 the glass size cannot be more than the sight size plus the depth of one rebate, less a glazing clearance of 2mm-4mm (dependant on glass thickness, type, frame straightness and squareness). When installed this glass is then centred in the frame.
Therefore an 18mm rebate will only allow a maximum edge cover of 7mm or 8mm (1⁄2 rebate depth minus 1⁄2 of clearance) with the maximum glass thickness derived from Table 1 (see on A Series 132 page).

Detail 1. Shuffle Glazing Tolerances



Detail 2. Shuffle Glazing Tolerances



Note: Edge cover is defined as fully dupporting the glass - glazing gasket or wedge extending beyond the frame backing should not be considered as part of the edge cover.
Internal cleated corners can also reduce the pocket depths and make it impossible for the glass to comply with NZS 4223.

GLASS OPTIONS

DESIGN GUIDELINES

GLAZED INTERNAL PARTITIONS

Table A - Internal partitions with unframed side edges

Height of glass (span M)	Type of glass	Minimum standard nominal thickness (mm)	Maximum number of vertical butt joints per opening	Maximum number of individual glass panels per opening	Maximum individual panel width (mm)
≤1.3	Annealed	5*	2	3	1000
≤1.3	Annealed	6*	No limit	No limit	No limit
≤1.3	Toughened†	4	2	3	1000
≤1.3	Toughened†	5	No limit	No limit	No limit
≤1.3	Laminated† ‡	6	2	3	1000
≤1.3	Laminated† ‡	8	No limit	No limit	No limit
>1.3 ≤2.0	Annealed	6*	1	2	1200
>1.3 ≤2.0	Annealed	8*	2	3	1000
>1.3 ≤2.0	Annealed	10	2	3	1200
>1.3 ≤2.0	Toughened†	6	2	3	1000
>1.3 ≤2.0	Toughened†	8	No limit	No limit	No limit
>1.3 ≤2.0	Laminated† ‡	6	2	3	1000
>1.3 ≤2.0	Laminated† ‡	8	2	3	1200
>1.3 ≤2.0	Laminated† ‡	10	No limit	No limit	No limit
>2.0 ≤2.6	Annealed	8*	1	2	1200
>2.0 ≤2.6	Annealed	10	2	3	1000
>2.0 ≤2.6	Annealed	12	2	3	1200
>2.0 ≤2.6	Toughened†	8	No limit	No limit	No limit
>2.0 ≤2.6	Toughened†	10	No limit	No limit	No limit
>2.0 ≤2.6	Laminated† ‡	8	1	2	1200
>2.0 ≤2.6	Laminated† ‡	10	2	3	1200
>2.0 ≤2.6	Laminated† ‡	12	No limit	No limit	No limit
>2.6 ≤3.0	Annealed	10	1	2	1200
>2.6 ≤3.0	Annealed	12	2	3	1000
>2.6 ≤3.0	Toughened†	10	No limit	No limit	No limit
>2.6 ≤3.0	Toughened†	12	No limit	No limit	No limit
>2.6 ≤3.0	Laminated† ‡	10	2	2	1000
>2.6 ≤3.0	Laminated† ‡	12	2	2	1200

* Minimum 10 mm for side panels (refer 305.1.3).

† Safety glazing material Grade A to AS/NZS 2208 (refer Appendix 3.B).

‡ Based on total glass thickness only (interlayer thickness not included and should be added)

POTTER INTERIOR SYSTEMS

0800 POTTERS
www.potters.co.nz // info@potters.co.nz