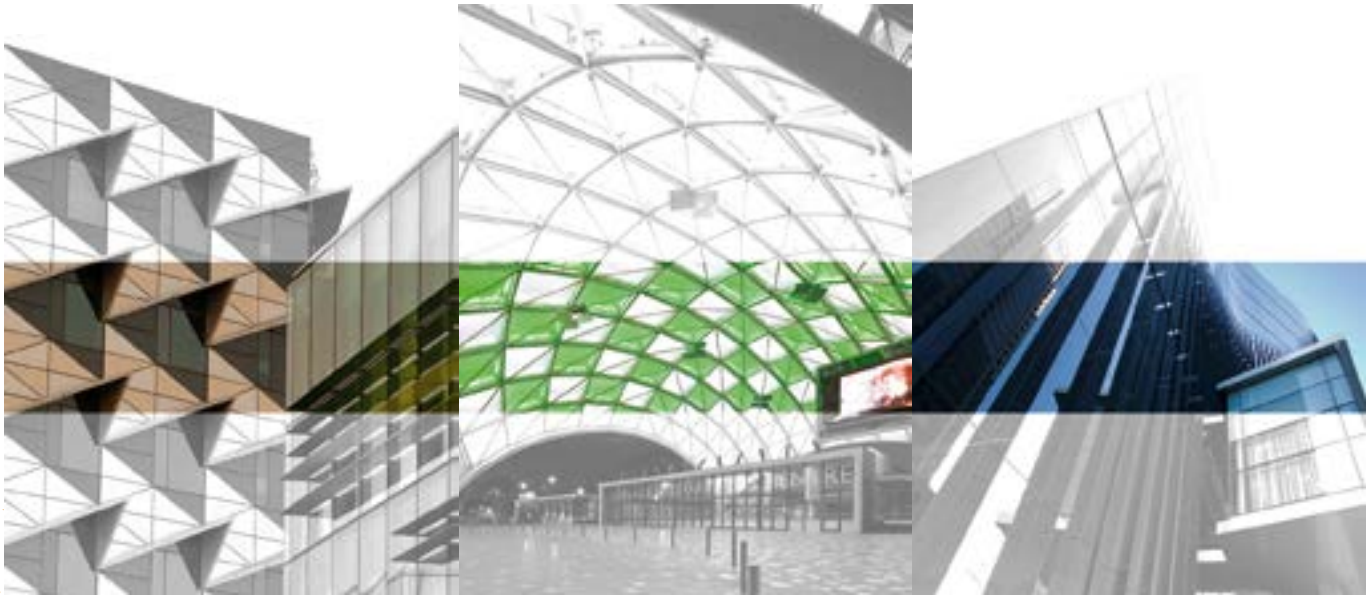

CEILINGS

RONDO®

RONDO KEY-LOCK® CONCEALED SUSPENDED CEILING SYSTEM

SUMMARY

Whether you're looking to direct fix or fully suspend your plasterboard ceiling, the Rondo KEY-LOCK® Concealed Suspended Ceiling System is designed to produce high quality structure for a flawless, flush or featured finish. The KEY-LOCK® system can also be used as a framework to line virtually any existing wall or substrate.

SUITABLE FOR:

- Flush plasterboard ceilings
- Direct Fix or Fully Suspended applications
- Non-Fire Rated systems
- Fire Rated systems
- Acoustic Designs available
- Seismic Designs available*

SPECIAL FEATURES

- Able to be designed for external use, e.g. External Soffits
- Base Material Engineered from G2 BlueScope Steel for Strength and reliability
- Primary and secondary profiles available in custom lengths or radiusses

IN PRACTICE

Since its initial introduction over 50 years ago, the design simplicity of the Rondo KEY-LOCK® system has seen its use around the world in some remarkable projects from the ***Setia City Mall in Malaysia***, to the ***Crown Metropol in Melbourne***.

Some KEY-LOCK® components have also been manufactured with a specific radius to produce vaulted ceilings or curved walls, such as in the ***Pod Pavilion in Malaysia,*** and the ***Aquatic Centre in Adelaide***, as well as the famous "sky ceilings" at the ***Venetian Resort and Casino, Macau***.

* Seismic activity varies significantly in the markets where the Rondo KEY-LOCK® System may be installed and therefore Rondo's Technical Services Department should be contacted for assistance.

IMPORTANT NOTE:
Rondo recommends its products and systems are installed by a qualified tradesperson and according to the relevant codes and standards outlined on page 256 of this manual.

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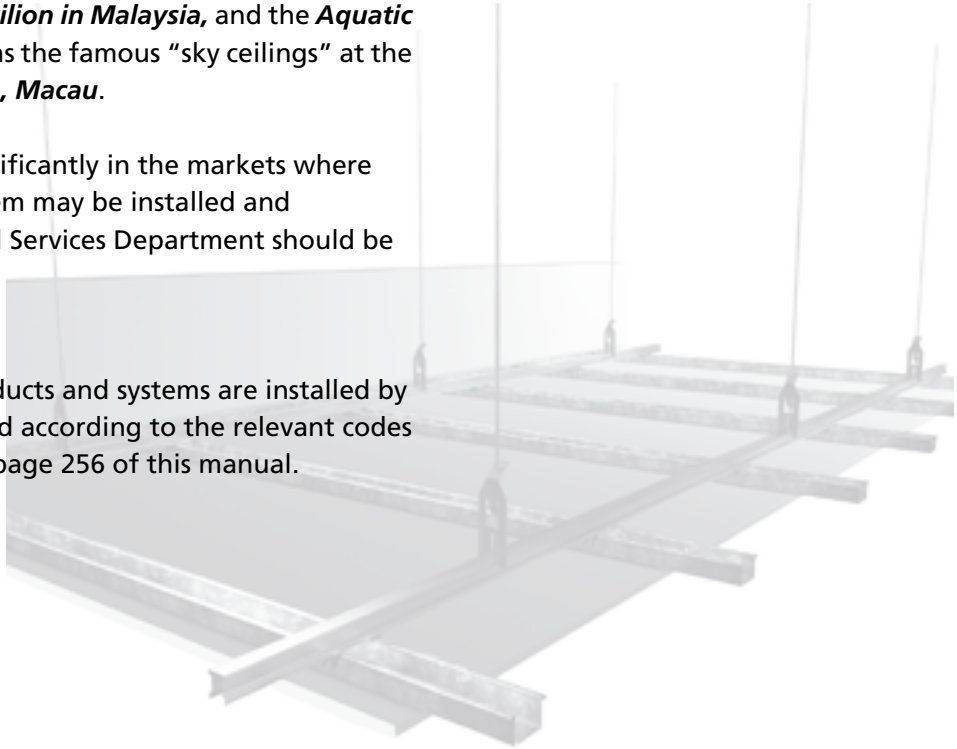


RONDO KEY-LOCK® COMPONENTS

PRIMARY SECTIONS

125	25mm Top Cross Rail 0.55bmt
127	25mm Top Cross Rail 0.75bmt
128	38mm Top Cross Rail 0.75bmt

FURRING/BATTEN SECTIONS

129	28mm Furring Channel
155	Wide Furring Channel with 10mm Express Joint
308	16mm Furring Channel
301	16mm Ceiling Batten
303	24mm Cyclonic Ceiling Batten
310	35mm Ceiling Batten
333	13mm Recessed Furring Channel
581	Resilient Channel
B005	Back Blocking Batten

SECTION JOINERS

138	Furring Channel 129-308
272	Top Cross Rail 125-127-128
312	Joiner 310
315	Nail-up Batten 301

PRIMARY TO SECONDARY JOINERS

119	Rondo U Clip
139	129-308 to 127-128
159	155 to 127-128

BULKHEAD TRIM

321	Aluminium Direct Fix-TW – 13mm PB

WALL TRIMS

140	Furring Channel Wall Track to suit 129
142	Wall Track to suit 308
340	Wall Track to suit 310
DUO5	Wall Angle 25 x 19mm Steel
DUO6	Wall Angle 19 x 9 x 9 x15mm Aluminium Shadowline
P51	Shadowline Combination Set Bead for 10mm Board
P52	Shadowline Combination Set Bead for 13mm Board
P53	Shadowline Combination Set Bead for 16mm Board

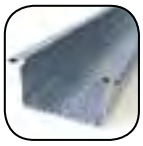
PRIMARY SECTIONS


125/127


128

FURRING/BATTEN SECTIONS


129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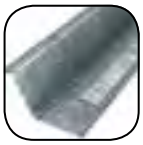
308


303


301


310


333


581


B005

SECTION JOINERS


138


312


272


315

PRIMARY TO SECONDARY JOINERS


119


139


159

BULKHEAD TRIM


321

WALL TRIMS


140/340


142


DUO 5


DUO 6


P51/P52/P53

DIRECT FIXING CLIPS

156	Direct Fix Clip Timber/Steel for 155
157	Direct Fix Clip Masonry for 155
166	125-127-128 to Timber/Steel
226	129-308 to Timber/Steel
237	129-308 to Concrete
239	129-308 to Concrete-Screw Fix
282	Direct Fix FC Clip for Membrane Insulation
305	301 to Timber/Steel 150mm long
307	301 to Timber 90° DFC
311D	Direct fixing clip 310
313	Extended direct fixing clip for 310
314	DFC with positioning tab for 301 Batten to Timber/Steel 92mm
390	301 Batten Swivel Clip
394	129-308 to Timber/Steel
A124	TCR Assembly Clip with adj. through bolt
A239	FC Assembly Clip with adj. through bolt
BG01	BETAGRIP1 Standard Clip
BG02	BETAGRIP2 Long Clip
BG05	BETAFIL Double Membrane Insulation Clip
FC-INFIN0030	Sliding Adjustable Furring Channel Clip
FC-INFIN0080	Long Sliding Adjustable Furring Channel Clip
TCR-INFIN090	Sliding Adjustable Top Cross Rail Clip

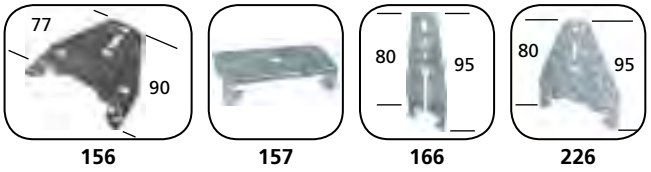
SUSPENSION BRACKETS FOR RODS

247	121 to Concrete
274	121 to Timber/Steel Joist
534	Adjustable Suspension Hanger (Purlins)
547	Adjustable Suspension Hanger (Concrete)

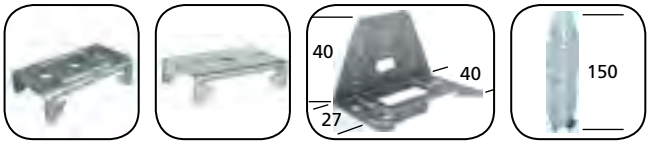
SUSPENSION CLIPS

124	125-127-128 Thread Adj.
124N	124 with threaded nut 127–128
167	Side mounted TCR Suspension Clip
2534	TCR Suspension Clip
254	121/121 or 121/122 Joiner Spring Adj.

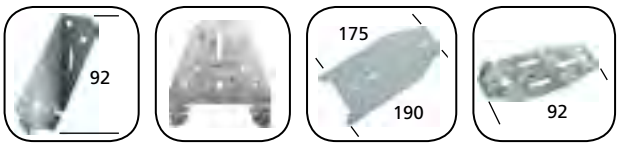
DIRECT FIXING CLIPS



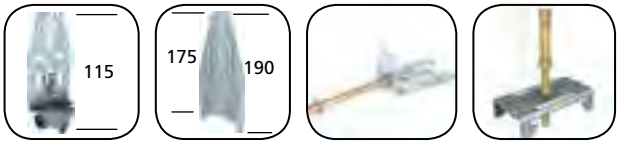
156 157 166 226



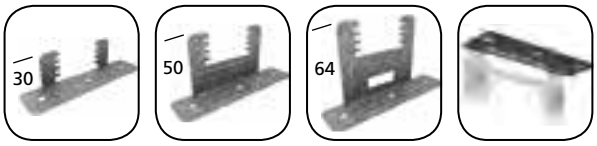
237 239 282 305



307 311D 313 314



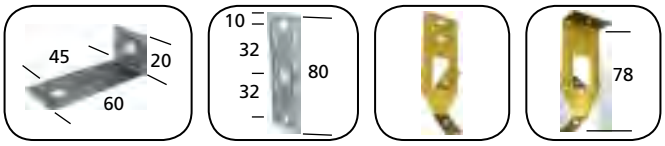
390 394 A124 A239



BG01 BG02 BG05 FC-INFIN0030

FC-INFIN0080 TCR-INFIN090

SUSPENSION BRACKETS FOR RODS



247 274 534 547

SUSPENSION CLIPS

124 124N 167 2534 254

RONDO KEY-LOCK® COMPONENTS (continued)

SUSPENSION RODS & NUTS

121	5mm soft galv. rod: plain
122	5.3mm soft galv. rod: M6 threaded one end
826	M6 nut to suit threaded rod

ACCESSORIES

130	Rod Bender
545	L Bracket 75 x 75 x 1.50bmt
709	Joiner – DUO5
717	Bulkhead clip – screw fix

RADIUSSED WALL TRIMS

242D	Shadowline Aluminium Column Trim
242R	Shadowline Aluminium Wall Angle
243D	'L' Column Trim
243R	'L' Wall Angle

SUSPENSION RODS & NUTS

121

122

826

ACCESSORIES

130

545

709

717

INSTALLATION DETAILS

Suspended Ceilings for Internal Applications

Note:
The work shall comply with the requirements of the Standards listed in this manual on page 256, and undertaken by qualified trades persons.

STEP ONE

Fix Furring Channel Track along both walls and at 90° to the direction of the Furring Channel.

STEP TWO

Cut Suspension Rod to length. Attach Direct Fixing Clip (534 or 547) to one end and TCR clip 2534 to the other. Fix assembly to one side of the truss, purlin or concrete slab with appropriate fixings (*as in Figures 1 & 2*) and at required centres *(see span tables, page 31)*.
Refer to Figures 3 & 7 for information on positioning of Hangers, Top Cross Rail and Wall Track.

STEP THREE

Adjust all Hangers to correct drop using string line or laser.

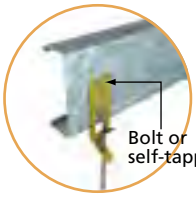
STEP FOUR

Attach Top Cross Rails to suspension clips. Join primary rails end to end using Joiner 272. Also using Joiner 272 on each end of the Top Cross Rail run, tap joiner up against the walls to stabilise the system *(refer Figures 3 & 4.)*

NOTE:
For fire rated systems, leave a 20mm gap at the end of each Top Cross Rail.

1

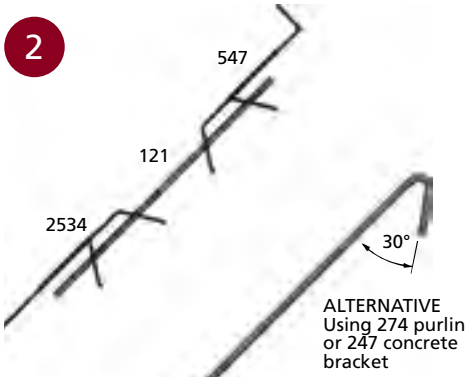
Suspension rod bracket Part No 534



Suspension rod bracket Part No 547

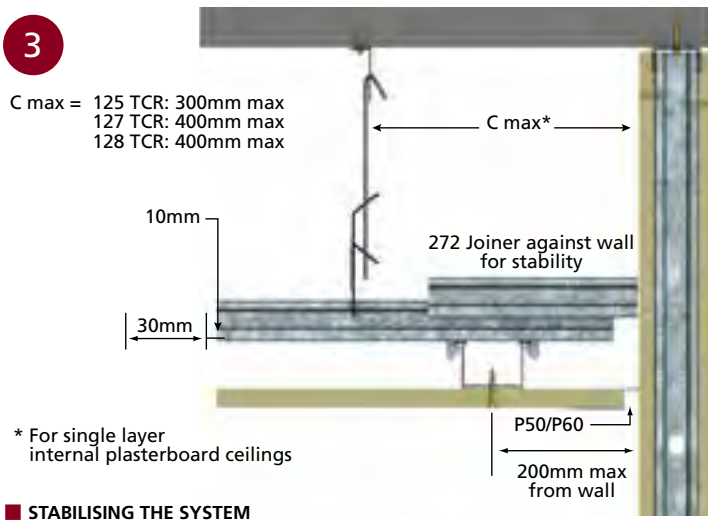
SUSPENSION BRACKETS FOR RODS

2



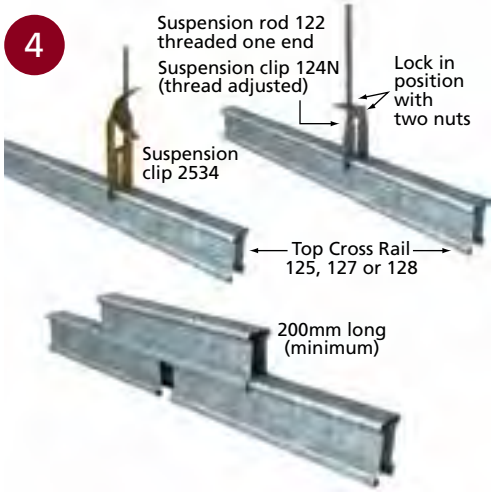
SUSPENSION ROD ASSEMBLY

3



STABILISING THE SYSTEM

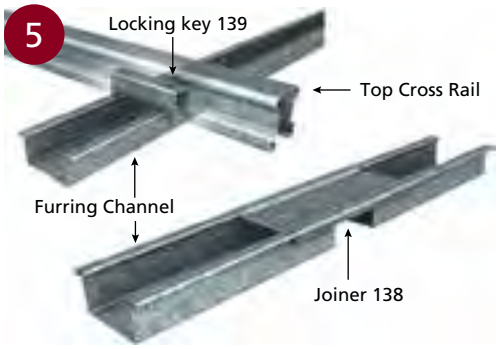
4



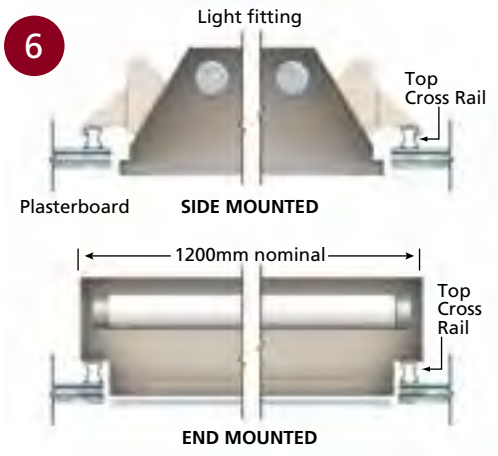
TOP CROSS RAIL ATTACHMENT

INSTALLATION DETAILS (continued)

Suspended Ceilings (continued)



■ **CONNECTING TO FURRING CHANNEL**



■ **LIGHT FITTINGS (nominal 1200x600mm)**
Note: Additional suspension is required to carry light fittings or other ceiling attachments.

STEP FIVE

Use the 139 Locking Key to connect both the Top Cross Rail and Furring Channel together. Space the Furring Channel at the building board manufacturers specifications and our tables on pages 36–38.

Join the Furring Channels end to end using 138 Joiners *(see Figure 5)*. Ensure that the ends of the Furring Channel are connected into the Furring Channel Track.

NOTE:

For fire rated systems, leave a 20mm gap at the end of each Furring Channel and TCR.

Joints in the Furring Channels and Top Cross Rails should be staggered throughout the ceiling grid *(refer to building board manufacturer for recommended spacing).*

STEP SIX

Install lining sheet as per the building board manufacturer's recommendations. Light fittings and air conditioning grills can also be installed *(refer Figure 6).*

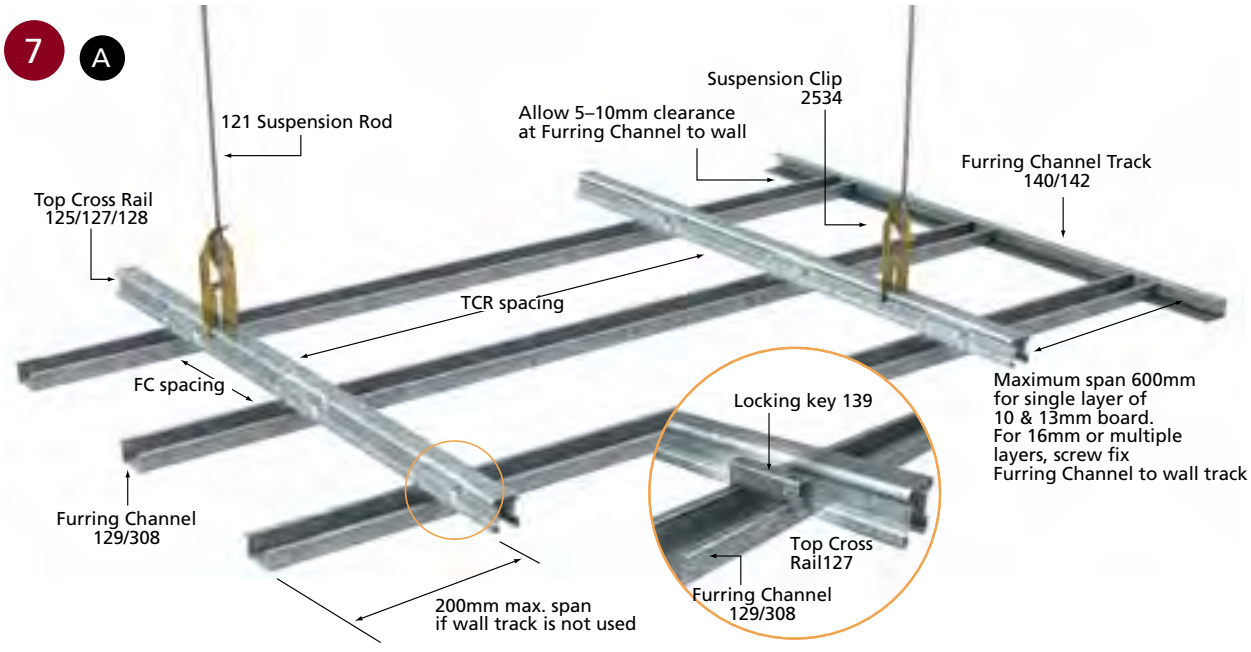
NOTE:

As referenced in AS2785/2000, the ceiling grid is only designed to accept a distributed service load of 3 kg/m^2.

For additional loads, consult the maximum load tables on pages 36–38.

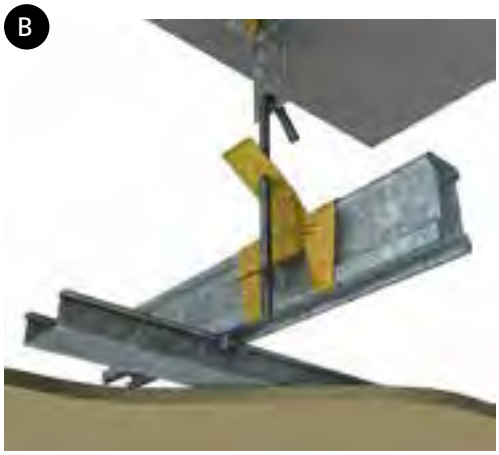
STEP SEVEN

For examples of typical perimeter finishing methods, refer Figures 3 & 8.



■ **KEY-LOCK® SUSPENDED CEILING**

B



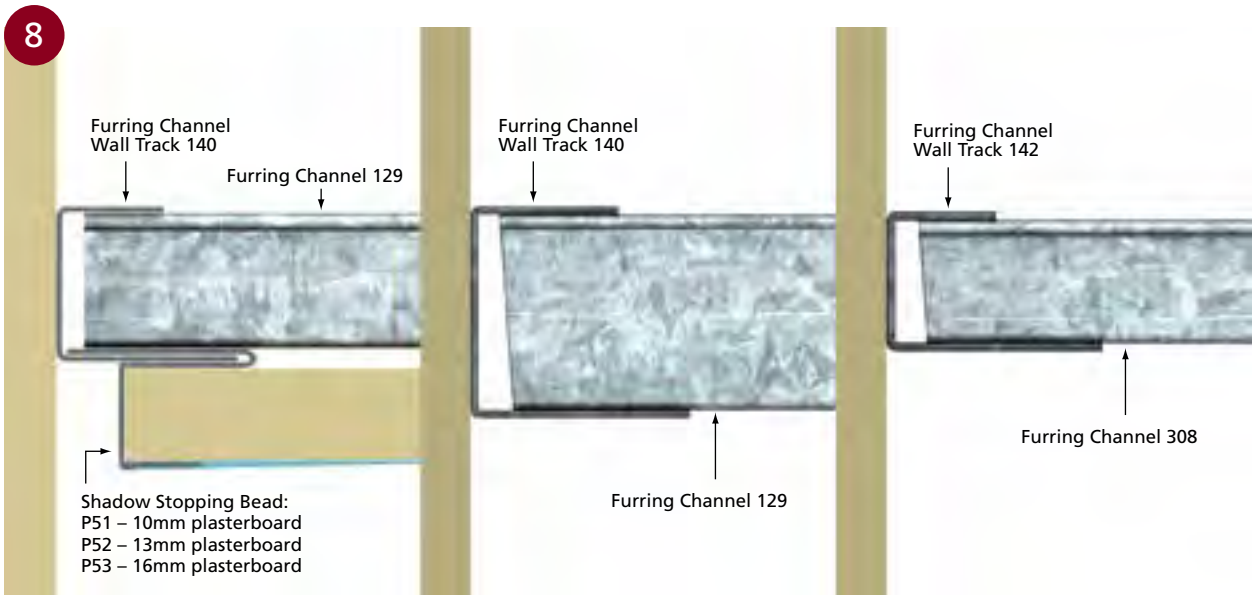
■ TCR SIDE MOUNT CLIP 167

C

■ INFINITI SLIDING ADJUSTABLE CLIP TO TCR

NOTE:
167 Top Cross Rail Side Mount Clip is only suitable for a single layer of board.

8



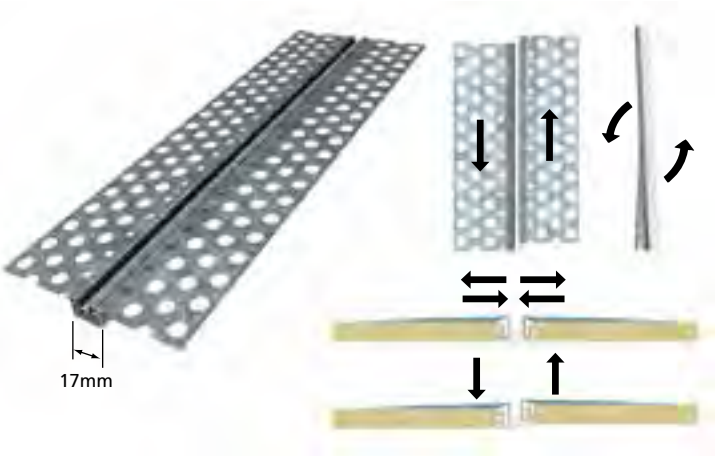
■ **FURRING CHANNEL WALL TRACKS**
Note: Leave a minimum gap of 5-10mm between Furring Channel and wall track

INSTALLATION DETAILS (continued)

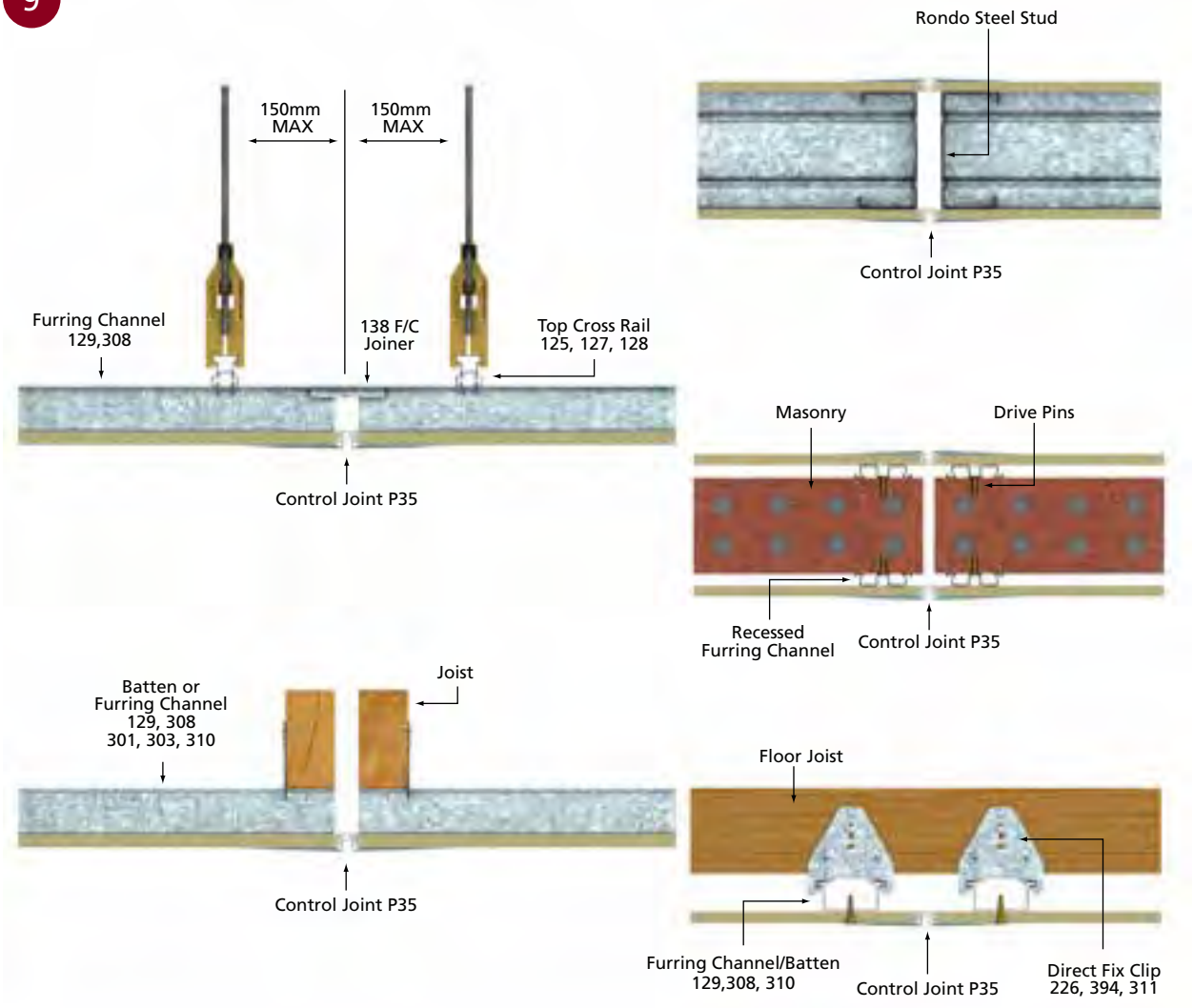
Control Joints for Internal Applications

Control joints allow for expansion and contraction movements in buildings.

Rondo P35 Control Joint section should also be used when a building board surface abuts a dissimilar wall assembly. It is also recommended by the building board manufacturers that Rondo P35 Control Joints are installed when continuous ceiling lengths exceed 12m in any direction.



9



Suspended Ceiling System for External Applications

When installing the Rondo KEY-LOCK® suspended ceiling system in external applications, consideration should be given to wind pressure which may occur. For Downstrut details, refer to Figure 10.

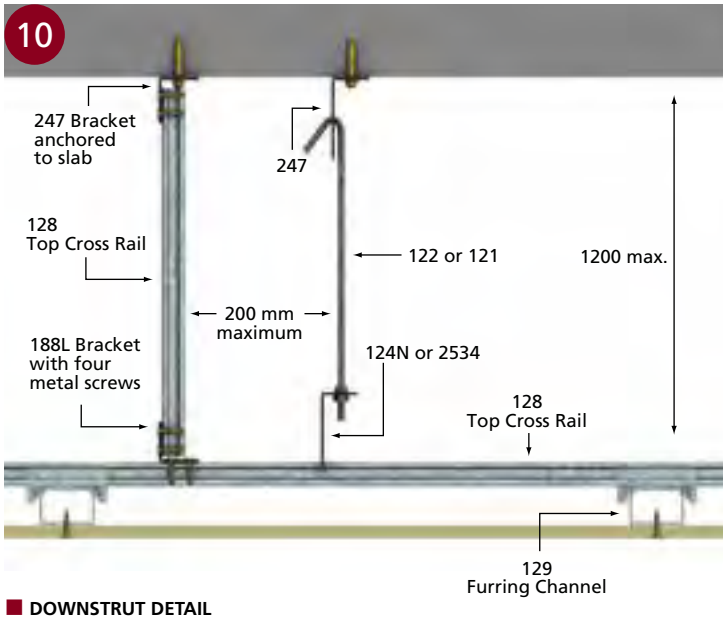
WIND LOADING TABLE

The accompanying table shows the maximum spacing for part number 128 Top Cross Rail and maximum suspension point spacing along the Top Cross Rail for the wind pressures indicated. The limit state loading needs to be determined in accordance with AS/NZS1170.2 and the load combinations specified in AS/NZS 2785.

The downstrut acts in compression under an upward wind load and therefore nominal fixings are required at either end.

NOTE:

Check with the building board manufacturer for correct spacing of Furring Channels (part number 129).



DOWNSTRUT DETAIL

TABLE 1: ULTIMATE LOAD CAPACITY FOR 128 TOP CROSS RAIL

SUPPORT CONFIGURATION		LIMIT STATES	
TCR SPACING (mm)	**TCR SUPPORT CENTRES** (mm)	**ULTIMATE LIMIT STATE** (kPa)	**SERVICABILITY LIMIT STATE** (kPa)
1200	1200	0.24	0.24
900	1200	0.32	0.32
900	900	0.79	0.79
900	600	1.19	1.19
600	600	2.60*	2.60*

NOTES: 1. The above table gives the limit state load capacity for various ceiling configurations. The direction of loading may be upward or downward, provided the ceiling is installed with downstrutting as per Figure 10.
2. Slab connections to be independently checked.
3. Serviceability limit state deflection limited to L/250.
4. Lining contribution has been ignored in analysis.
5. Number 129 Furring Channels to be installed at 600 ctrs for TCR span=1200mm and 450 ctrs for TCR span=900mm or less.
6. Limit state load combinations to be calculated in accordance with AS/NZS 1170.0 or AS/NZS 2785.
*7. * Capacity controlled by connections.*

INSTALLATION DETAILS (continued)

Direct Fixing of Furring Channel Battens for Internal Applications

Direct fixing of Furring Channels and battens to either concrete, steel or timber wall or ceiling structures can be done using one of the many direct fixing clips as shown in Figure 11.

The maximum drop for direct fixing should be limited to 200mm. Any drop greater than 200mm requires a full Rondo suspension system.

Direct fixing clips need to be fixed along the sections in accordance with the relevant maximum span tables.

Furring channels should be spaced in accordance with the building board manufacturers recommendations.

IMPORTANT NOTES:

It is not recommended to screw or nail fix battens or Furring Channels directly to timber joist supporting a trafficable floor due to deflection of the joist occurring and possible subsequent interaction with the ceiling batten. Use only direct fixing clips as shown on page 9.

The BETAGRIP BG01/02 when used for Ceilings should only be secured with One Centre Fixing (i.e. Use Centre Hole Only).

11

BETAGRIP BG01/02 to Furring Channel
NOTE: Centre fixing Only

A239 to Furring Channel

Long INFINITI clip to Furring Channel

394 clip nailed to joist
Furring Channel

226 clip nailed to joist
Furring Channel

305 clip nailed to joist
Ceiling Batten

314 clip nailed to joist
Ceiling Batten

390 Swivel Clip nailed to joist
Ceiling Batten

166 clip nailed to joist
Top Cross Rail

A124 to Top Cross Rail

■ **DIRECT FIXING CLIPS**

Bulkhead Installation for Internal Applications

The Rondo Square Line Bulkhead System allows easy, economical and true bulkhead corner finishes to be achieved by using concealed support clips and fixings.

STEP ONE
Install the metal framework and fix the building board to the horizontal surface.

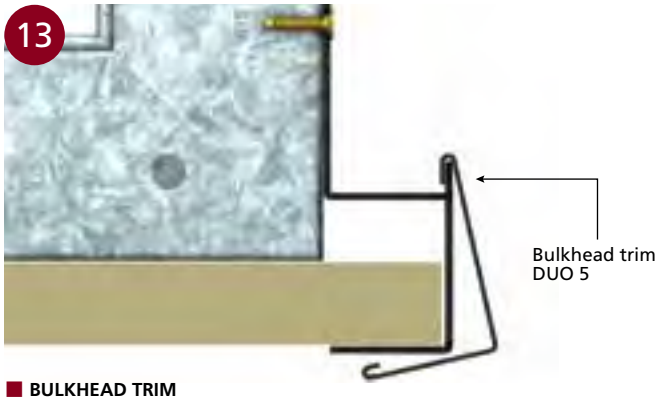
STEP TWO
Attach Support Clip 717 to the framework, with the bottom leg hard up against the building board. A string line can be used to assist if required *(refer Figure 12).*

STEP THREE
Introduce the Bulkhead Trim DUO 5 to the support clips *(refer Figure 13).*

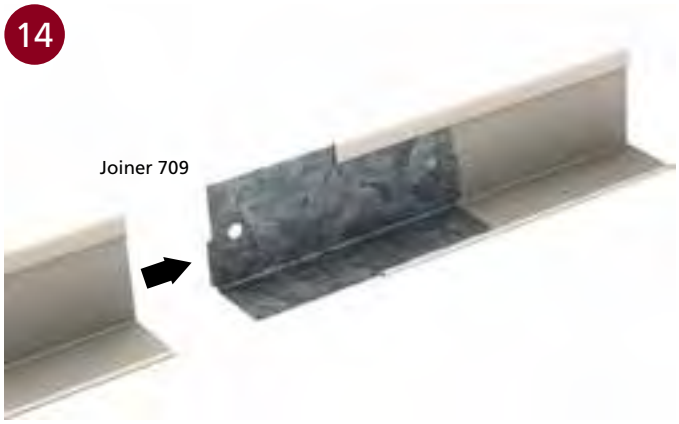
STEP FOUR
Join Bulkhead Trim end to end using Joiner 709 to give a flush finish *(refer Figure 14).*

STEP FIVE
Introduce the vertical building board as shown below, and screw fix to the framework *(refer Figure 15).*

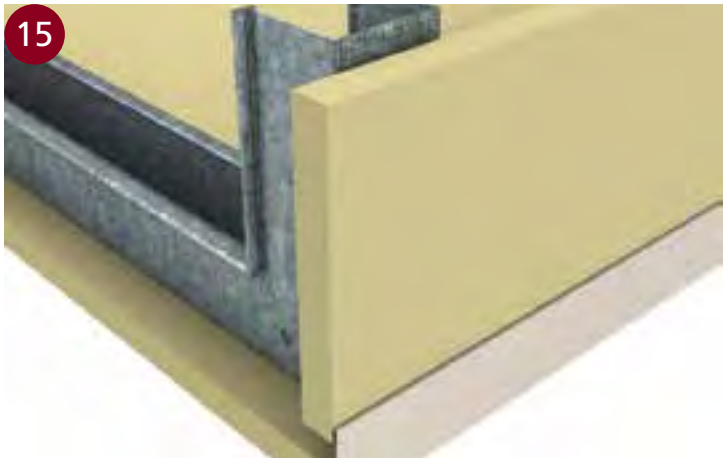
SUPPORT CLIPS



BULKHEAD TRIM



BULKHEAD DETAILS

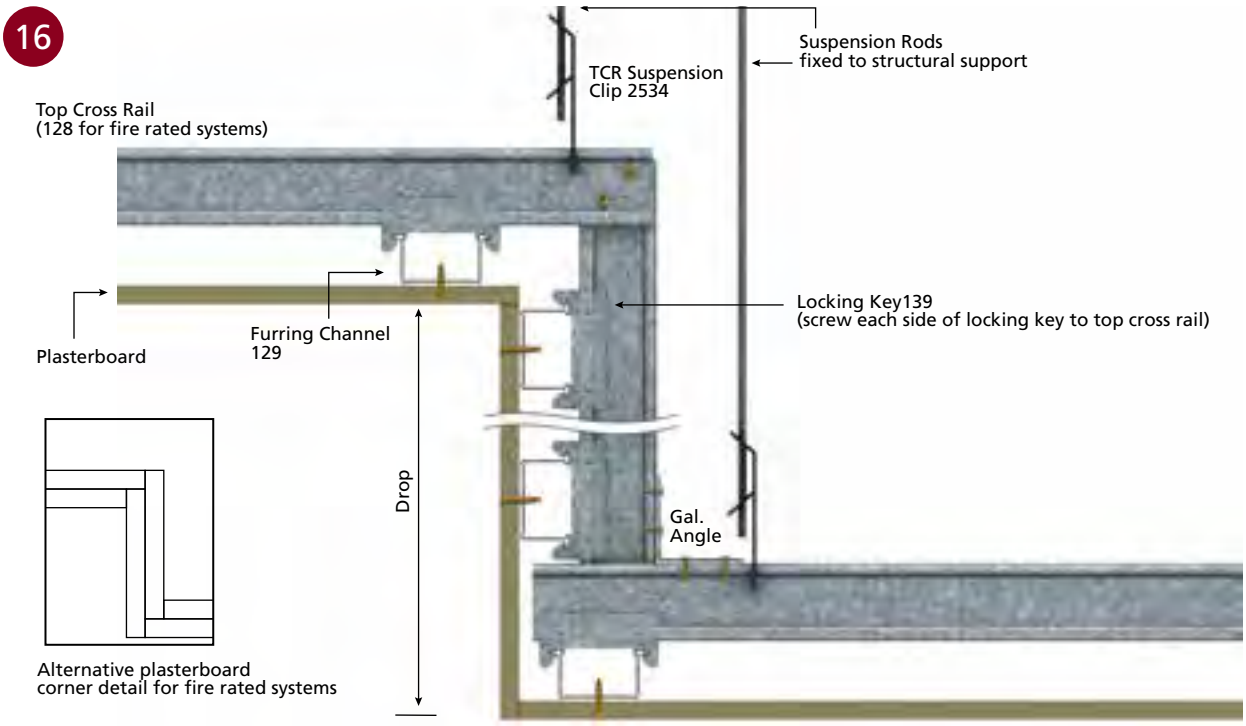


VERTICAL MEMBERS

TYPICAL APPLICATION DETAILS

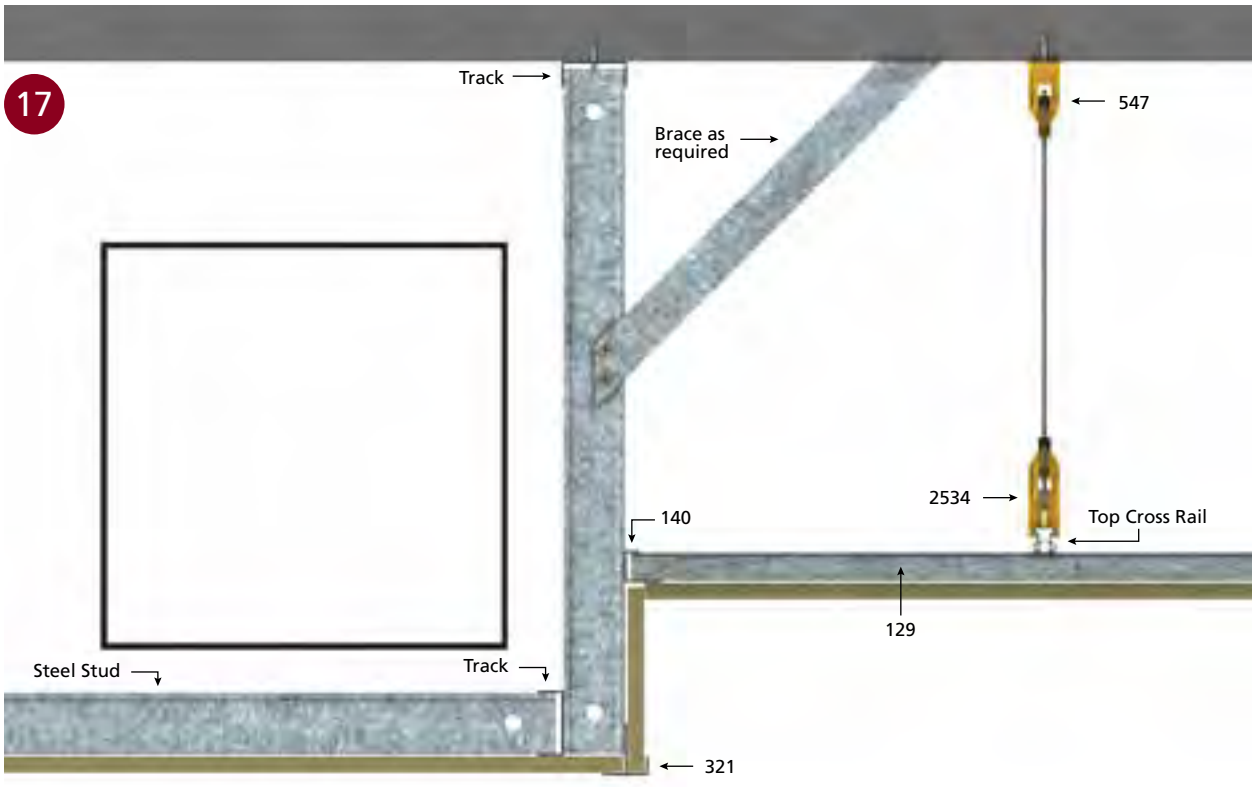
Bulkheads for Internal Applications

16



■ **FRAMED BULKHEAD 'A'**

17



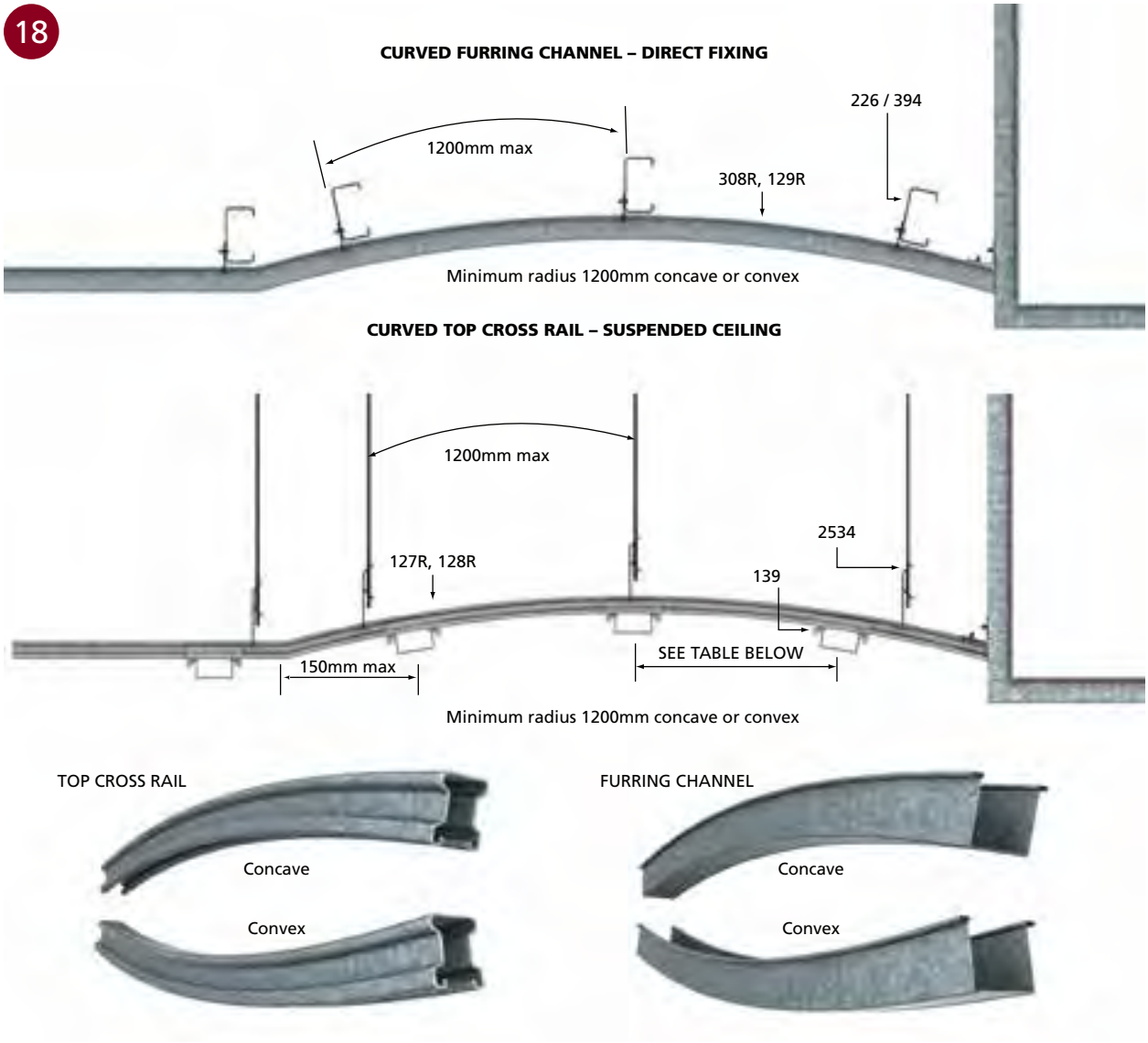
■ **FRAMED BULKHEAD 'B'**

NOTE:

The maximum drop of bulkheads is not to exceed 1200mm for suspended bulkheads.

Curved Ceilings for Internal Applications

18



■ CURVED CEILING DETAILS

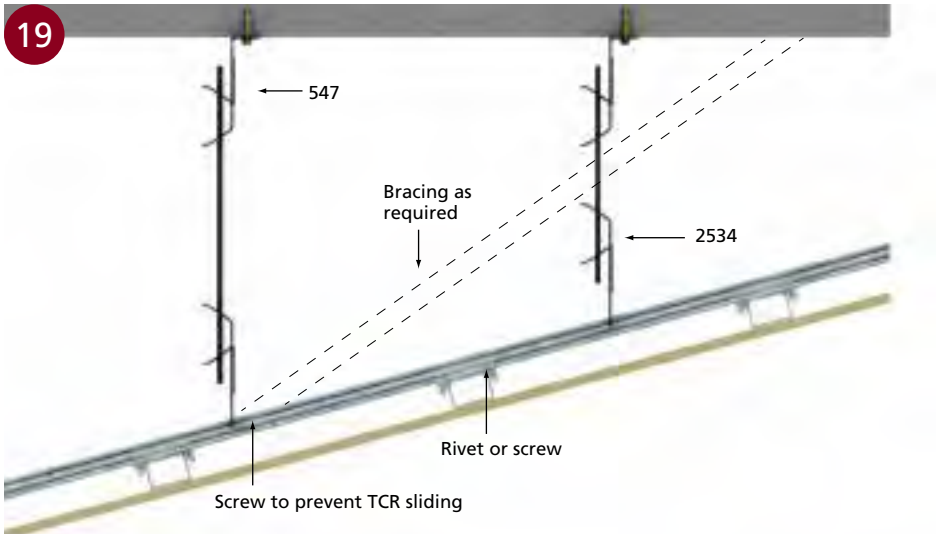
TABLE 2: MAXIMUM FURRING CHANNEL CENTRES FOR CURVED CEILINGS

PLASTERBOARD THICKNESS (mm)	**CEILING CURVE RADIUS** (mm)						
	900–1000	**1000–1500**	**1500–2000**	**2000–2500**	**2500–3000`**	**3000–4000**	**4000+**
	MAXIMUM FURRING CHANNEL CENTRES (mm)						
6.5	150	200	250	300	350	450	550
10	150	200	250	300	350	400	500
13	–	150	200	250	300	400	500
16	–	–	–	–	–	250	350

TYPICAL APPLICATION DETAILS (continued)

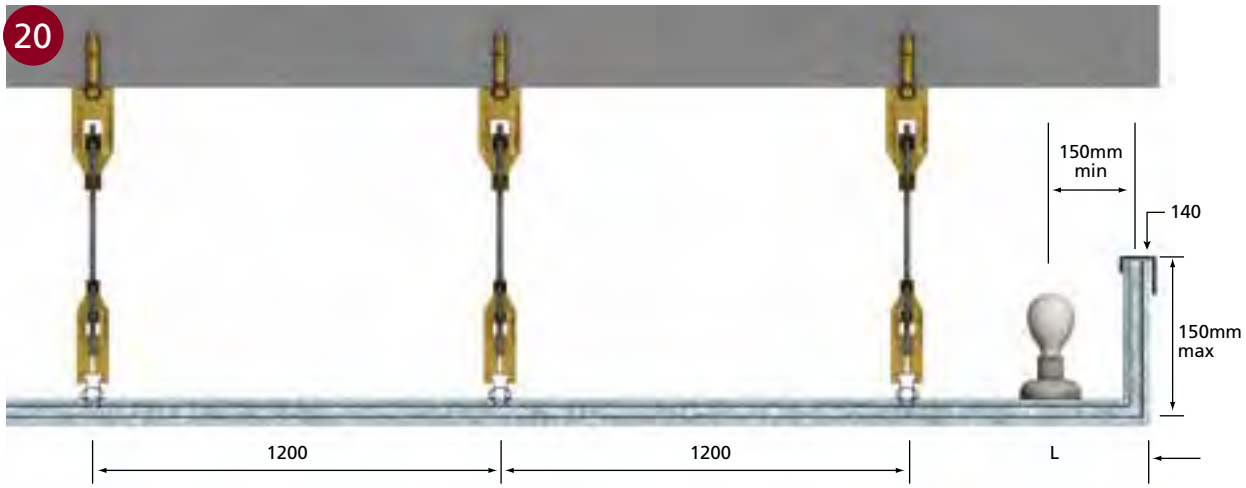
Raked & Cantilevered Ceilings for Internal Applications

19



■ FOR RAKING AND CURVED CEILINGS

20



■ FURRING CHANNEL–TOP CROSS RAIL: CANTILEVER DETAILS

TABLE 3: MAXIMUM CANTILEVER (L) FOR ONE LAYER 10/13/16mm PLASTERBOARD

MEMBER (mm)	CENTRES (mm)	L (mm)
129 FURRING CHANNEL	600 450`	350 380
308 FURRING CHANNEL	600 450	250 270
125 TOP CROSS RAIL	1200 900	250 260
127 TOP CROSS RAIL	1200 900	260 280
128 TOP CROSS RAIL	1200 900	370 420

NOTE: 1. Maximum upstand to cantilever not to exceed 150mm.
2. Maximum weight of light fitting not to exceed 5kg/m.
3. Deflection limited to L/600
4. Ceiling to be constructed in accordance with the Rondo KEY-LOCK® installation guide
5. Minimum backspan as shown – reducing the suspension hangers to 900 ctrs does not increase the cantilever.

METAL CEILING BATTENS

Domestic for Internal Applications

Metal ceiling batten systems cut back on the cost of call-back maintenance when board is fixed directly to roof trusses.

Rondo have a range of metal ceiling batten systems which are suitable for truss spacings from 600mm to 1200mm and for use in cyclonic and high wind areas. Refer to maximum span and spacing tables for the various ceiling Battens *(see page 33–35)*.

314 DIRECT FIXING CLIP

To accommodate the increasing use of timber "I" beams, the 314 Direct Fixing Clip has been designed with two extra nail or screw slots placed lower down on the clip, with an additional temporary holding tab to assist installation.

The temporary holding tab is tapped into the timber beam when the clip is at the required level, therefore freeing up both hands to permanently secure the clip with nails or screws through the two adjacent fixing slots.

390 BATTEN SWIVEL CLIP

With the ability to rotate 360°, the 390 Batten Swivel Clip can easily turn the ceiling batten on an angle that suits the change in roof truss direction.

It also incorporates the temporary holding tab for quick and easy installation

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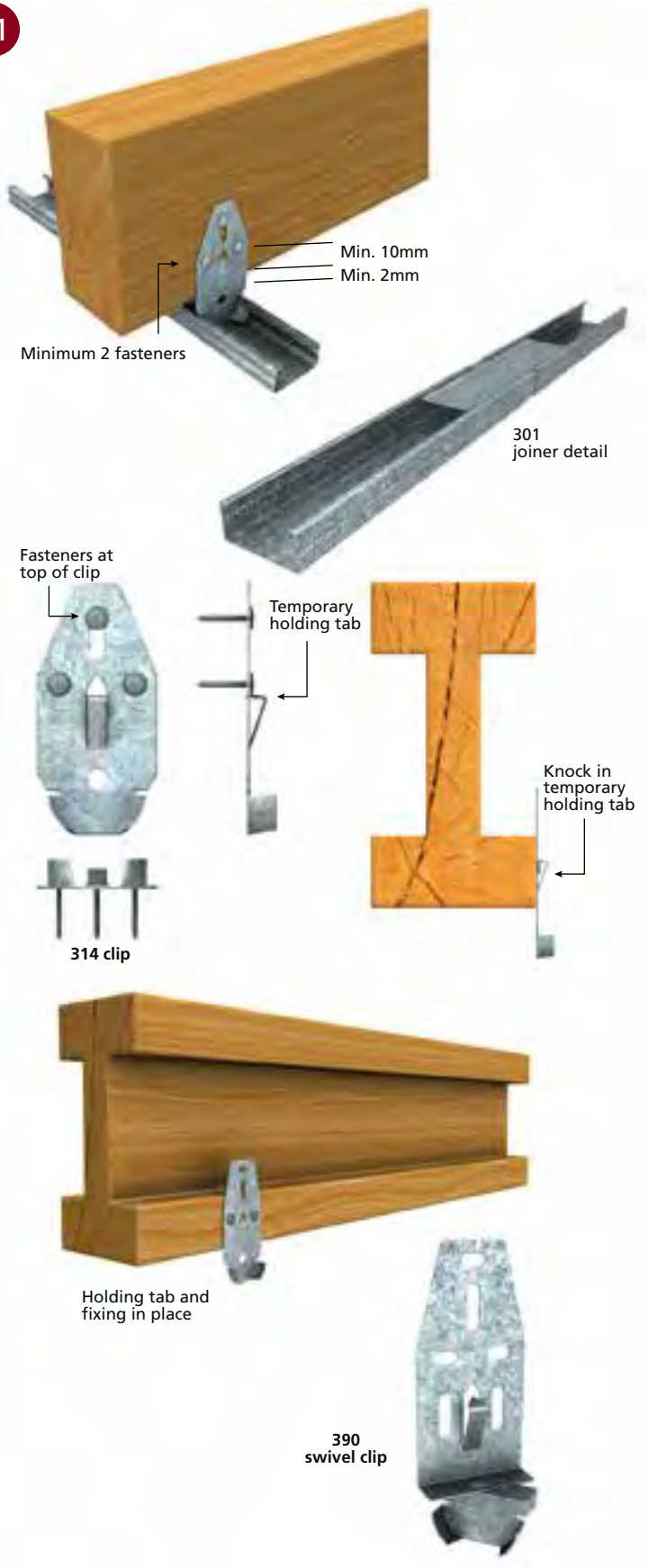

■ METAL CEILING BATTEN DETAILS

METAL CEILING BATTENS (continued)

Domestic for Internal Applications (continued)

CEILING BATTENS AND DIAPHRAGM ACTION

Ceiling battens that are clipped or suspended are not designed or tested to provide the necessary ceiling diaphragm action required by the code to enable wind forces to be transferred to bracing walls *(refer AS 1684 7.3.3-1 Parts 2-3)*.

Tests have been conducted on Rondo ceiling batten part number 303 by James Cook University to provide a satisfactory diaphragm system when direct fixed.

Contact Rondo state offices for further information.

IMPORTANT NOTE

Green timber should not come into contact with galvanised steel due to certain acidic substances in the timber which have a corrosive effect on the metallic coating. Some preservative treatments for wood can also have an adverse effect on metallic coated steel with which it is in contact. Timber treated with acidic preservatives of copper chromium arsenic (CCA) can be severely corrosive to the majority of metallic building components. Other timber treatments using Tanalith 'E' (Tanalised Ecowood) may cause pitting of the metal coating.

If any of the above timber is likely to come into contact with metallic coatings, the steel should be painted for protection.

The use of kiln-dried or appropriate dried timber is therefore recommended when metallic coated products are likely to be in contact.

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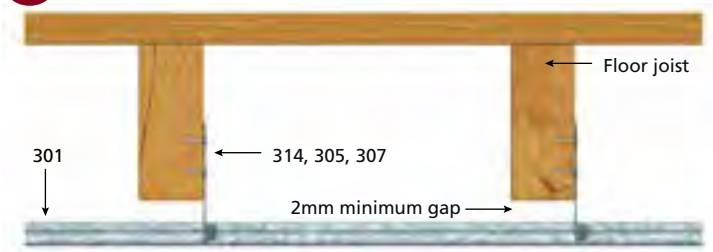

TRAFFICABLE FLOOR INSTALLATION DETAIL

STANDARD TIMBER TRUSS INSTALLATION DETAIL

See Table 4 for nail or screw fixing information

■ CEILING BATTENS

TABLE 4: FASTENER RECOMMENDATIONS

BATTEN PART NO	NAIL LENGTH & DIAMETER					
	HARDWOOD			SOFTWOOD		
	LENGTH (mm)	DIA (mm)	TYPE	LENGTH (mm)	DIA (mm)	TYPE
301	40	2.8	Annular Ring Shanked	50	2.8	Annular Ring Shanked
303	30	2.8	Annular Ring Shanked	40	2.8	Annular Ring Shanked
310	30	2.8	Annular Ring Shanked	40	2.8	Annular Ring Shanked

BATTEN PART NO	SCREW LENGTH & SIZE		
	STEEL	HARDWOOD	SOFTWOOD
301	Wafer Head 10 x 24 x 16 Drill Point	Wafer Head 10 x 35 Type 17	Wafer Head 10 x 45 Type 17
303/310	Wafer Head 10 x 24 x 16 Drill Point	Pan Head 8 x 25 Type 17 10 x 25 Wafer	Wafer Head 10 x 45 Type 17

NOTE: Minimum three threads penetration into substrate.

BUTT JOINT STITCHING BATTEN

B005 Butt Joint Stitching Batten developed with the plasterboard industry provides a constant recess shape for finishing when installed as per the plasterboard manufacturer's recommendations.

A faster, more cost-effective joint with greater strength is therefore achieved.

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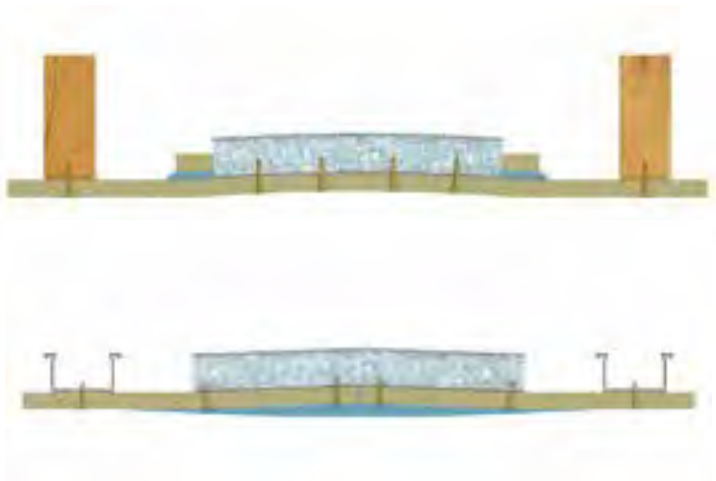

STITCHING BATTENS

RONDO 119 U CLIP™

For Internal Applications

The Rondo U Clip™ adds a new dimension to the role of Top Cross Rails (TCR) in our KEY-LOCK® Ceiling System as it allows the carrying capacity of the 127 and 128 TCR profiles to provide support for a variety of applications, when used in conjunction with threaded M6 suspension rod.

The U Clip™ is simply snapped into the underside of the TCR and then the threaded rod is screwed into the clip, using either 122 (threaded one end) or 123 (threaded both ends) Suspension Rods. The standard 121 Rod can be accommodated by joining it to the threaded rods with the 254 Joiner (also known as the 'Banana Clip').

The design tables *(Table 5)* enables a range of applications, including but not limited to :

- Suspension of signage
- Suspension of additional KEY-LOCK® framing to allow lining board to form feature soffites at varying levels beneath either blacked out voids or an existing ceiling.
- Lighting, both single light boxes and continuous lighting.
- Services not requiring stabilising.
- Fixing Furring Channel at varying angles beneath the TCR (when coupled with the 239 clip)
- Support for bridging beneath ducting, beams, etc. *(see Figure 24)*
- Suspending another ceiling beneath an existing KEY-LOCK® ceiling such as the Duo exposed grid system.

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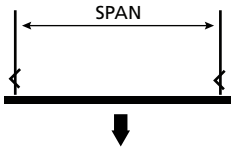
■ **SUPPORT FOR BRIDGING BENEATH DUCTING**

TABLE 5: U CLIP DESIGN TABLES

SINGLE SPAN WITH SINGLE POINT LOAD

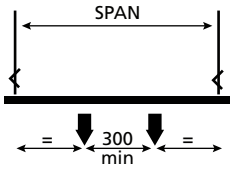
	ALLOWABLE POINT LOAD (kg)			
	127 TCR spacing		128 TCR spacing	
SPAN	**900**	**1200**	**900**	**1200**
900	16	16	47	47
1200	8	7	25	24
1500	3	–	14	13
1800	–	–	8	7



Allowable Load 'P'

SINGLE SPAN WITH TWO EQUALLY SPACED POINT LOADS

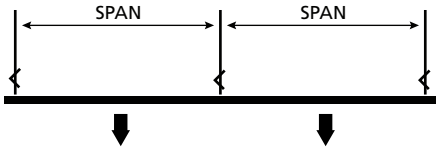
	ALLOWABLE POINT LOAD – EACH (kg)			
	127 TCR spacing		128 TCR spacing	
SPAN	**900**	**1200**	**900**	**1200**
900	10	9	28	27
1200	4	4	14	13
1500	2	–	7	7
1800	–	–	4	4



Allowable Individual Point Load 'P'

DOUBLE SPAN WITH EQUAL POINT LOADS IN BOTH SPANS

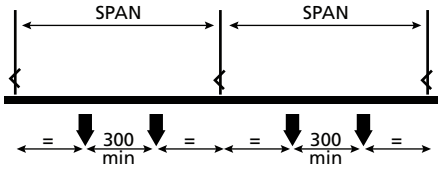
	ALLOWABLE POINT LOAD (kg)			
	127 TCR spacing		128 TCR spacing	
SPAN	**900**	**1200**	**900**	**1200**
900	32	32	50	50
1200	21	21	38	37
1500	12	11	24	23
1800	–	–	14	13



Allowable Load 'P'

DOUBLE SPAN WITH TWO EQUALLY SPACED POINT LOADS IN BOTH SPANS

	ALLOWABLE POINT LOAD (kg)			
	127 TCR spacing		128 TCR spacing	
SPAN	**900**	**1200**	**900**	**1200**
900	18	18	29	29
1200	12	11	20	19
1500	6	6	13	12
1800	–	–	7	7



Allowable Individual Point Load 'P'

NOTES:
1. *Allowable point load is specified in kg. Point loading considered as dead load only.*
2. *Deflection limited to L / 360 under service load, for other limits adjust load accordingly.*
3. *The above tables assume construction in accordance with the Rondo Keylock Manual.*
4. *The above tables are only valid for the Rondo 119 U Clip installation.*

EXPRESS JOINT: CEILINGS

Rondo 155 Express Joint Furring Channel for Internal Applications

The 155 Express Joint Furring Channel is a 48mm face width profile with a 10mm wide central strip which can be used together with complimentary clips from the KEY-LOCK® System for internal ceilings or wall finishes *(see Figure 25)*.
The profile's width allows the use of building boards requiring up to a 12mm edge distance for screwing whilst offering a 10mm wide express joint which is easily followed when sheeting the framing *(see Figure 27)*.
The complimentary clips allow the 155 Express Joint Furring Channel to be direct fixed to timber joists or steel purlins and clipped into standard Top Cross Rail for a fully suspended ceiling *(see Figure 28)*.
This product is specified for use with particular specialised building boards by the manufacturers.
This is a special, made-to-order product and therefore it is important to check availability with an Authorised Rondo Distributor, or Rondo Sales Office.
Rondo 155 Express Joint can also be used in wall finishes by directly fixing to wall substrates (see Figures 26,27 & 28).

IMPORTANT NOTE:

The Rondo Express Joint Furring Channel is for internal use only. Rondo does not recommend it for exterior use.

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155 USED IN INTERNAL CEILING

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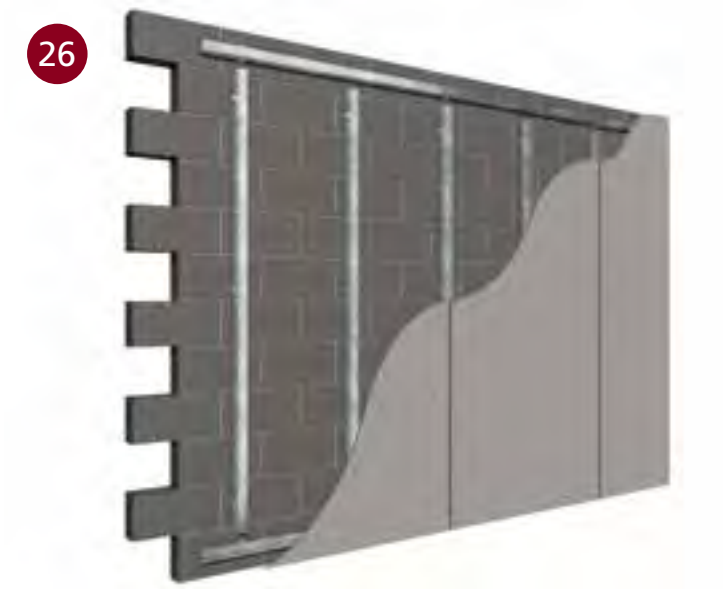

155 USED IN INTERNAL WALL

27

155 DETAIL

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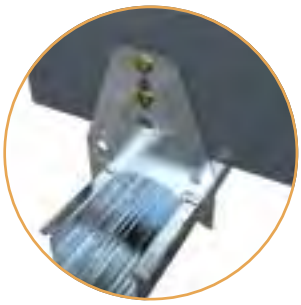
155 Furring Channel clipped to TCR

155 Furring Channel Fixed to Timber Joist



155 Furring Channel Fixed to Steel Purlins

155 Furring Channel Fixed to Wall

TABLE 6: 155 FURRING CHANNEL DIRECT FIX

N2 (W33) WIND LOADING

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	1740	1600	2160	1960
1 x 13mm	1620	1480	2000	1840
1 x 16mm	1460	1330	1810	1650
2 x 13mm	1310	1190	1620	1480
2 x 16mm	1170	1070	1450	1320

N3 (W41) WIND LOADING

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	1690	1530	1890	1590
1 x 13mm	1620	1480	1830	1540
1 x 16mm	1460	1330	1770	1480
2 x 13mm	1310	1190	1620	1360
2 x 16mm	1170	1070	1450	1280

NOTES:

I. Wind loading to AS4055 as follows: ***N2****:* V_{hu} *= 40m/s* V_{hs} *= 26m/s* C_{pi} *= -0.3*
N3*:* V_{hu} *= 50m/s* V_{hs} *= 32m/s* C_{pi} *= -0.3*

2. Ultimate limit state: ***LC I****: 1.2G + Wu*

3. Serviceability limit state: ***LC2****: G - Limit L/600*
LC3*: G + Ws - Limit L/200 to AS 1170.0*

4. N2 wind loading was previously W33, and N3 wind loading was previously W41.

5.The above tables are for internal ceilings in non-cyclonic regions.

TABLE 7: CEILING INSTALLATION WITH KEY-LOCK TCR

MAXIMUM CEILING LOAD: TCR SPAN 1200mm

SPACING OF 127 STANDARD TCR	FURRING CHANNEL SPACING	
	450	600
	ALLOWABLE CEILING WEIGHT (kg/m²)	
	155 FURRING CHANNEL	
900	27	27
1200	19	19
1500	15	15
1800	9.1	5.9

SPACING OF 128 HEAVY DUTY TCR	FURRING CHANNEL SPACING	
	450	600
	ALLOWABLE CEILING WEIGHT (kg/m²)	
	155 FURRING CHANNEL	
900	50	50
1200	37	37
1500	21	15
1800	9.1	5.9

NOTES:

I. The above tables give the allowable dead load for the various ceiling configurations. The calculated ceiling weight therefore does not have to be factored in accordance with ASINZS 2785.

2. Connections to be independently checked.

3. Deflection limited to L/360.

4. Lining contribution has been ignored in analysis.

5. Refer to details on Page 15 for external suspended ceiling systems.

6. Ultimate limit state: 1.4G + 1.7U. Serviceability limit state: G + U.

■ 155: TYPICAL APPLICATIONS

IMPORTANT FIXING INFORMATION

Suspending Ceilings from Purlins

Rondo does not produce a suspension clip for attachment to the lip of steel purlins ('C' or 'Z' purlins, etc.) for the following reasons:

AS/NZS 2785:2000 Suspended Ceilings – Design and Installation details the following in respect to this issue:

- Section 4 Installation – Part 4.4: "In the case of purlins, the top fixing shall be made to the web of the purlin unless specifically designed otherwise"
- APPENDIX G Fixing (Informative): G2 Top Fixing, G2.1 Purlin Fixings:
  "Purlin fixings should be as follows:

A) Connections should be made to the web of the purlin, unless specifically designed otherwise

B) Where flange connections are necessary, they should be made as close as possible to the web of the purlin

C) Purlin manufacturers do not recommend attaching the top fixing to the lip of the purlin

D) Fixings should be selected and installed in accordance with the manufacturers specifications."

PRODUCT DATA SPECIFICATIONS

Furring Channels/Battens

MATERIAL SPECIFICATIONS

The sections are cold roll formed from steel strip manufactured to AS1397.

PART NO'S: 129/308/333/310

Steel Grade: G2
Yield Strength: Fy = 270 MPa (typical)
Coating Grade: Z275 – 275g/m² zinc

PART NO'S: 301/303

Steel Grade: G550
Yield Strength: Fy = 550 MPa
Coating Grade: zincalume AZ150 – 150g/m² alum/zinc
Base Metal Thickness: As specified

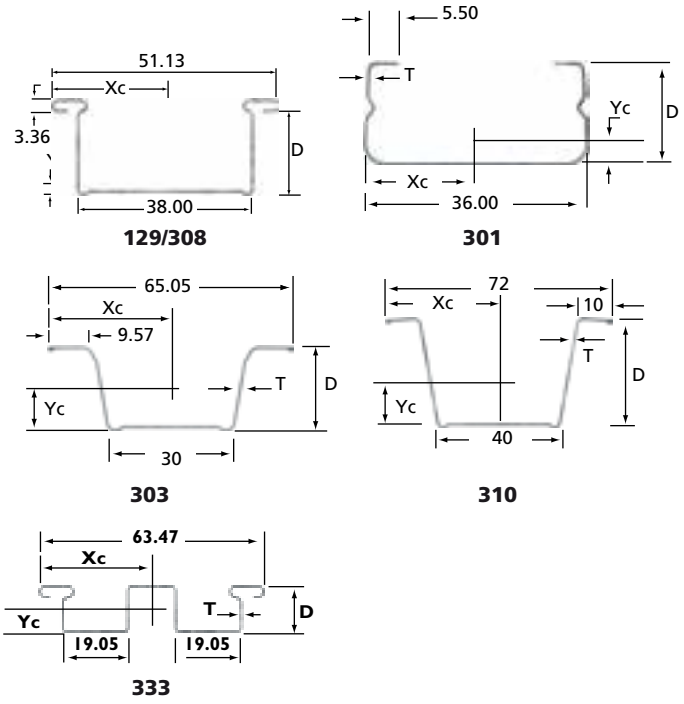


TABLE 8: FURRING CHANNELS & BATTENS – SECTION DIMENSIONS

BATTEN PART NO	AREA (mm^2)	D (mm)	T (BMT) (mm)	Xc (mm)	Yc (mm)	YIELD STRESS (MPa)	SELF-WEIGHT (kg/m)
129	59.6	27.3	0.50	25.56	13.04	270	0.468
308	48.2	16.0	0.50	25.56	7.70	270	0.378
333	63.2	12.7	0.50	31.74	6.44	270	0.496
301	33.2	16.3	0.42	18.00	5.81	550	0.261
303	45.1	23.5	0.42	32.52	11.48	550	0.354
310	66.0	35.0	0.55	36.00	15.97	270	0.518

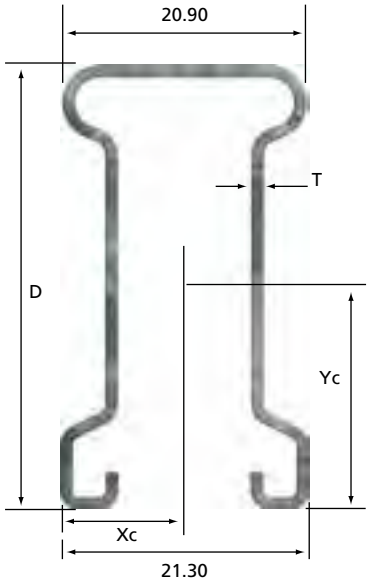
PRODUCT DATA SPECIFICATIONS (continued)

Top Cross Rails

MATERIAL SPECIFICATIONS

The sections are cold roll formed from zinc coated steel strip, which is manufactured to AS1397.

Steel Grade: G2
Yield Strength: Fy = 270 MPa (typical)
Coating Grade: Z275 – 275g/m^2 zinc
Base Metal Thickness: As specified



125/127/128

TABLE 9: TOP CROSS RAILS – SECTION DIMENSIONS

BATTEN PART NO	AREA (mm^2)	D (mm)	T (BMT) (mm)	Xc (mm)	Yc (mm)	YIELD STRESS (MPa)	SELF-WEIGHT (kg/m)
125	48.2	26.35	0.55	10.65	14.18	270	0.378
127	65.7	26.35	0.75	10.65	14.20	270	0.516
128	84.2	38.65	0.75	10.65	20.41	270	0.661

SPAN TABLES

129 Furring Channel: Direct Fix

MAXIMUM SPANS: WIND LOADS N2 (0.29kPa ULT)

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	1245	1148	1713	1580
1 x 13mm	1213	1119	1670	1540
1 x 16mm	1184	1092	1630	1503
2 x 13mm	1128	1041	1552	1432
2 x 16mm	1088	1004	1498	1381

MAXIMUM SPANS: WIND LOADS N3 (0.45 kPa Ult)

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	1125	1037	1547	1428
1 x 13mm	1105	1018	1519	1401
1 x 16mm	1085	1001	1494	1378
2 x 13mm	1047	965	1440	1328
2 x 16mm	1018	938	1400	1292

NOTES: 1. Wind loading to AS4055 as follows: ***N2****:* V_{hu} *= 40m/s* V_{hs} *= 26m/s* C_{pi} *= -0.3* ***N3****:* V_{hu} *= 50m/s* V_{hs} *= 32m/s* C_{pi} *= -0.3*
2. Ultimate limit state: ***LC I****: 1.2G + Wu*
3. Serviceability limit state: ***LC2****: G - Limit L/600* ***LC3****: G + Ws - Limit L/200 to AS 1170.0*
4. N2 wind loading was previously W33, and N3 wind loading was previously W41.
5.The above tables are for internal ceilings in non-cyclonic regions.

MAXIMUM SPANS: WIND LOADS 0.50 kPa – 1.00 kPa

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING							
	0.50 kPa				0.60 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	1097	1011	1510	1392	1049	967	1443	1331
1 x 13mm	1078	995	1484	1369	1034	954	1423	1312
1 x 16mm	1062	979	1461	1347	1020	941	1403	1295
2 x 13mm	1026	946	1412	1302	990	913	1362	1256
2 x 16mm	999	922	1375	1269	967	892	1331	1228

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING							
	0.70 kPa				0.80 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	1009	931	1389	1281	976	900	1343	1239
1 x 13mm	997	919	1372	1265	965	890	1328	1225
1 x 16mm	985	908	1355	1250	955	880	1314	1212
2 x 13mm	959	885	1320	1217	932	860	1283	1183
2 x 16mm	940	866	1293	1192	915	844	1259	1161

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING							
	0.90 kPa				1.00 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	947	873	1302	1202	922	850	1268	1170
1 x 13mm	937	865	1290	1190	913	842	1257	1159
1 x 16mm	928	856	1278	1178	905	835	1246	1149
2 x 13mm	908	838	1250	1153	887	818	1221	1126
2 x 16mm	893	824	1229	1133	873	806	1202	1108

NOTES: 1. Stated pressure is the ultimate design wind load, including all local factors.
2. Deflection limited to the lesser of L/600 under dead load, or L/200 under dead plus service wind load.
3. Service wind load checked at 0.65 times the ultimate pressure.
4. Strength check of unrestrained flange in compression.
5. Connections to be independently checked.

SPAN TABLES (continued)

308 Furring Channel: Direct Fix

MAXIMUM SPANS: WIND LOADS N2 (0.29kPa ULT)

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	1018	933	1384	1269
1 x 13mm	990	907	1359	1245
1 x 16mm	965	885	1324	1215
2 x 13mm	915	840	1170	1095
2 x 16mm	881	808	1094	1027

MAXIMUM SPANS: WIND LOADS N3 (0.45 kPa Ult)

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	913	837	1253	1149
1 x 13mm	895	821	1228	1126
1 x 16mm	878	806	1206	1106
2 x 13mm	845	775	1160	1064
2 x 16mm	820	752	1094	1027

NOTES: 1. Wind loading to AS4055 as follows: ***N2****:V_{hu} = 40m/s V_{hs} = 26m/s C_{pi} = -0.3* ***N3****:V_{hu} = 50m/s V_{hs} = 32m/s C_{pi} = -0.3*
2. Ultimate limit state: ***LC 1****: 1.2G + Wu*
3. Serviceability limit state: ***LC2****: G - Limit L/600* ***LC3****: G + Ws - Limit L/200 to AS 1170.0*
4. N2 wind loading was previously W33, and N3 wind loading was previously W41.
5.The above tables are for internal ceilings in non-cyclonic regions.

MAXIMUM SPANS: WIND LOADS 0.20 kPa – 0.50 kPa

CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING							
	0.20 kPa				0.30 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	1104	1012	1444	1317	1008	925	1320	1202
1 x 13mm	1065	976	1460	1340	981	900	1347	1235
1 x 16mm	1031	946	1415	1298	958	877	1313	1205
2 x 13mm	968	888	1328	1218	909	835	1249	1145
2 x 16mm	925	848	1268	1163	876	803	1202	1102

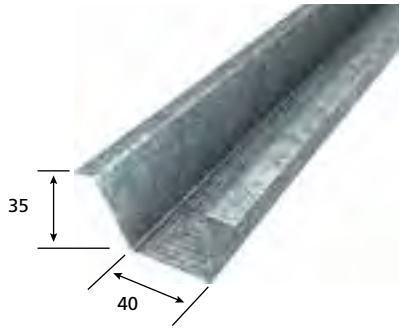
CLADDING DETAILS (Plasterboard)	FURRING CHANNEL SPACING							
	0.40 kPa				0.50 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	940	863	1229	1119	888	815	1160	1055
1 x 13mm	920	844	1263	1158	872	800	1198	1098
1 x 16mm	901	827	1238	1135	858	787	1177	1080
2 x 13mm	864	792	1185	1088	827	758	1135	1042
2 x 16mm	837	767	1149	1053	805	738	1105	1003

NOTES: 1. Stated pressure is the ultimate design wind load, including all local factors.
2. Deflection limited to the lesser of L/600 under dead load, or L/200 under dead plus service wind load.
3. Service wind load checked at 0.65 times the ultimate pressure.
4. Strength check of unrestrained flange in compression.
5. Connections to be independently checked.

310 Batten: Direct Fix

MAXIMUM SPANS: WIND LOADS N2 (0.29kPa ULT)

CLADDING DETAILS (Plasterboard)	BATTEN SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	1197	1101	1645	1513
1 x 13mm	1166	1072	1602	1473
1 x 16mm	1137	1046	1563	1438
2 x 13mm	1081	995	1486	1368
2 x 16mm	1042	959	1432	1318



MAXIMUM SPANS: WIND LOADS N3 (0.45 kPa Ult)

CLADDING DETAILS (Plasterboard)	BATTEN SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	1078	992	1482	1363
1 x 13mm	1058	973	1454	1337
1 x 16mm	1039	956	1428	1314
2 x 13mm	1001	921	1375	1265
2 x 16mm	972	894	1337	1230

NOTES: 1. Wind loading to AS4055 as follows: ***N2****:* V_{hu} *= 40m/s* V_{hs} *= 26m/s* C_{pi} *= -0.3* ***N3****:* V_{hu} *= 50m/s* V_{hs} *= 32m/s* C_{pi} *= -0.3*
2. Ultimate limit state: ***LC I****: 1.2G + Wu*
3. Serviceability limit state: ***LC2****: G - Limit L/600* ***LC3****: G + Ws - Limit L/200 to AS 1170.0*
4. N2 wind loading was previously W33, and N3 wind loading was previously W41.
5.The above tables are for internal ceilings in non-cyclonic regions.

MAXIMUM SPANS: WIND LOADS 0.50 kPa – 1.00 kPa

CLADDING DETAILS (Plasterboard)	BATTEN SPACING							
	0.50 kPa				0.60 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	1050	966	1443	1328	1003	923	1379	1268
1 x 13mm	1032	949	1419	1305	988	909	1359	1249
1 x 16mm	1015	934	1396	1284	975	896	1339	1232
2 x 13mm	980	902	1347	1240	945	869	1299	1195
2 x 16mm	954	878	1312	1207	923	849	1268	1167

CLADDING DETAILS (Plasterboard)	BATTEN SPACING							
	0.70 kPa				0.80 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	964	887	1325	1219	931	857	1280	1178
1 x 13mm	952	875	1308	1204	921	847	1265	1164
1 x 16mm	940	865	1292	1189	911	837	1250	1151
2 x 13mm	915	841	1257	1156	888	817	1220	1123
2 x 16mm	895	824	1231	1132	871	802	1197	1102

CLADDING DETAILS (Plasterboard)	BATTEN SPACING							
	0.90 kPa				1.00 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	903	830	1240	1141	878	807	1206	1110
1 x 13mm	893	822	1228	1130	869	800	1195	1099
1 x 16mm	885	814	1215	1119	860	793	1184	1089
2 x 13mm	865	796	1189	1094	844	777	1160	1067
2 x 16mm	850	782	1168	1075	830	764	1141	1050

NOTES: 1. Stated pressure is the ultimate design wind load, including all local factors.
2. Deflection limited to the lesser of L/600 under dead load, or L/200 under dead plus service wind load.
3. Service wind load checked at 0.65 times the ultimate pressure.
4. Strength check of unrestrained flange in compression.
5. Connections to be independently checked.

SPAN TABLES (continued)

301 Batten: Direct Fix

MAXIMUM SPANS: WIND LOADS N2 (0.29kPa ULT)

CLADDING DETAILS (Plasterboard)	BATTEN SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	950	900	1200	1200
1 x 13mm	950	900	1200	1200

MAXIMUM SPANS: WIND LOADS N3 (0.45 kPa Ult)

CLADDING DETAILS (Plasterboard)	BATTEN SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	900	800	1200	1120
1 x 13mm	900	800	1200	1100

NOTES:

I. Wind loading to AS4055 as follows: ***N2***:V_{hu} = 40m/s V_{hs} = 26m/s C_{pi} = -0.3
N3:V_{hu} = 50m/s V_{hs} = 32m/s C_{pi} = -0.3

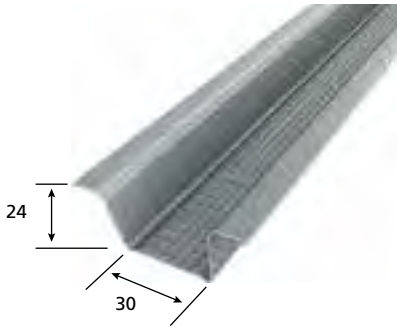
2. Ultimate limit state: ***LC I****: 1.2G + Wu*

3. Serviceability limit state: ***LC2****: G - Limit L/600*
LC3*: G + Ws - Limit L/200 to AS 1170.0*

303 Cyclonic Batten: Direct Fix

MAXIMUM SPANS: WIND LOADS N2 (0.29kPa ULT)

CLADDING DETAILS (Plasterboard)	BATTEN SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	945	871	1300	1200
1 x 13mm	920	850	1267	1168
1 x 16mm	900	830	1237	1141
2 x 13mm	856	790	1179	1087
2 x 16mm	826	762	1137	1049



MAXIMUM SPANS: WIND LOADS N3 (0.45 kPa Ult)

CLADDING DETAILS (Plasterboard)	BATTEN SPACING			
	SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600
1 x 10mm	854	787	1175	1084
1 x 13mm	838	773	1154	1064
1 x 16mm	824	760	1134	1046
2 x 13mm	795	733	1093	1009
2 x 16mm	773	713	1063	981

NOTES: I. Wind loading to AS4055 as follows: ***N2***$:V_{hu} = 40m/s\ V_{hs} = 26m/s\ C_{pi} = -0.3$
N3$:V_{hu} = 50m/s\ V_{hs} = 32m/s\ C_{pi} = -0.3$
2. Ultimate limit state: ***LC I****: 1.2G + Wu*
3. Serviceability limit state: ***LC2****: G - Limit L/600* ***LC3****: G + Ws - Limit L/200 to AS 1170.0*

MAXIMUM SPANS: WIND LOADS 0.50 kPa – 1.00 kPa

CLADDING DETAILS (Plasterboard)	BATTEN SPACING							
	0.50 kPa				0.60 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	833	767	1145	1057	796	735	1095	1010
1 x 13mm	819	755	1128	1039	784	724	1081	996
1 x 16mm	805	743	1109	1022	774	714	1066	983
2 x 13mm	779	719	1073	989	752	694	1035	955
2 x 16mm	759	700	1045	963	735	678	1010	933

CLADDING DETAILS (Plasterboard)	BATTEN SPACING							
	0.70 kPa				0.80 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	766	707	1055	973	741	684	1020	941
1 x 13mm	756	699	1042	961	733	676	1009	931
1 x 16mm	747	690	1030	950	725	669	998	920
2 x 13mm	729	672	1003	925	708	653	975	899
2 x 16mm	714	658	982	906	695	641	956	883

CLADDING DETAILS (Plasterboard)	BATTEN SPACING							
	0.90 kPa				1.00 kPa			
	SINGLE SPAN		CONTINUOUS SPAN		SINGLE SPAN		CONTINUOUS SPAN	
	450	600	450	600	450	600	450	600
1 x 10mm	719	664	990	913	700	646	963	888
1 x 13mm	712	657	980	904	694	640	955	881
1 x 16mm	705	650	970	895	687	634	946	873
2 x 13mm	690	637	950	877	674	622	927	856
2 x 16mm	679	626	933	862	664	612	913	842

NOTES: 1. Stated pressure is the ultimate design wind load, including all local factors.
2. Deflection limited to the lesser of L/600 under dead load, or L/200 under dead plus service wind load.
3. Service wind load checked at 0.65 times the ultimate pressure.
4. Strength check of unrestrained flange in compression.
5. Connections to be independently checked.

LOAD TABLES

125 Top Cross Rail x 0.55bmt

MAXIMUM CEILING LOAD: TCR SPAN 900mm

SPACING OF TOP CROSS RAIL	FURRING CHANNEL SPACING			
	450		600	
	ALLOWABLE CEILING WEIGHT (kg/m²)			
	129	308	129	308
900	49	41	49	30
1200	36	15	36	11
1500	21	6.4	15	4.1
1800	9.1	–	5.9	–

MAXIMUM CEILING LOAD: TCR SPAN 1200mm

SPACING OF TOP CROSS RAIL	FURRING CHANNEL SPACING			
	450		600	
	ALLOWABLE CEILING WEIGHT (kg/m²)			
	129	308	129	308
900	19	19	19	19
1200	13	13	13	11
1500	10	6.4	10	4.1
1800	7.9	–	5.9	–

MAXIMUM CEILING LOAD: TCR SPAN 1500mm

SPACING OF TOP CROSS RAIL	FURRING CHANNEL SPACING			
	450		600	
	ALLOWABLE CEILING WEIGHT (kg/m²)			
	129	308	129	308
900	8.1	8.1	8.1	8.1
1200	5.2	5.2	5.2	5.2
1500	3.4	3.4	3.4	3.4
1800	–	–	–	–

NOTES:
1. *The above tables give the allowable dead load for the various ceiling configurations. The calculated ceiling weight therefore does not have to be factored in accordance with AS/NZS 2785.*
2. *Connections to be independently checked.*
3. *Deflection limited to L/360.*
4. *Lining contribution has been ignored in analysis.*
5. *Refer to details on Page 15 for external suspended ceiling systems.*
6. *Ultimate limit state: 1.4G + 1.7U. Serviceability limit state: G + U.*

127 Top Cross Rail x 0.75bmt

MAXIMUM CEILING LOAD: TCR SPAN 900mm

SPACING OF TOP CROSS RAIL	FURRING CHANNEL SPACING			
	450		600	
	ALLOWABLE CEILING WEIGHT (kg/m²)			
	129	308	129	308
900	67	41	67	30
1200	50	15	37	11
1500	21	6.4	15	4.1
1800	9.1	–	5.9	–

MAXIMUM CEILING LOAD: TCR SPAN 1200mm

SPACING OF TOP CROSS RAIL	FURRING CHANNEL SPACING			
	450		600	
	ALLOWABLE CEILING WEIGHT (kg/m²)			
	129	308	129	308
900	27	27	27	27
1200	19	15	19	11
1500	15	6.4	15	4.1
1800	9.1	–	5.9	–

MAXIMUM CEILING LOAD: TCR SPAN 1500mm

SPACING OF TOP CROSS RAIL	FURRING CHANNEL SPACING			
	450		600	
	ALLOWABLE CEILING WEIGHT (kg/m²)			
	129	308	129	308
900	12	12	12	12
1200	8.4	8.4	8.4	8.4
1500	6.1	6.1	6.1	4.1
1800	4.6	–	4.6	–

NOTES:
1. *The above tables give the allowable dead load for the various ceiling configurations. The calculated ceiling weight therefore does not have to be factored in accordance with AS/NZS 2785.*
2. *Connections to be independently checked.*
3. *Deflection limited to L/360.*
4. *Lining contribution has been ignored in analysis.*
5. *Refer to details on Page 15 for external suspended ceiling systems.*
6. *Ultimate limit state: 1.4G + 1.7U. Serviceability limit state: G + U.*

LOAD TABLES (continued)

128 Top Cross Rail x 0.75bmt

MAXIMUM CEILING LOAD: TCR SPAN 1200mm

SPACING OF TOP CROSS RAIL	FURRING CHANNEL SPACING			
	450		600	
	ALLOWABLE CEILING WEIGHT (kg/m²)			
	129	308	129	308
900	50	41	50	30
1200	37	15	37	11
1500	21	6.4	15	4.1
1800	9.1	–	5.9	–

MAXIMUM CEILING LOAD: TCR SPAN 1500mm

SPACING OF TOP CROSS RAIL	FURRING CHANNEL SPACING			
	450		600	
	ALLOWABLE CEILING WEIGHT (kg/m²)			
	129	308	129	308
900	22	22	22	22
1200	16	15	16	11
1500	12	6.4	15	4.1
1800	9.1	–	5.9	–

MAXIMUM CEILING LOAD: TCR SPAN 1800mm

SPACING OF TOP CROSS RAIL	FURRING CHANNEL SPACING			
	450		600	
	ALLOWABLE CEILING WEIGHT (kg/m²)			
	129	308	129	308
900	10	10	10	10
1200	7	7	7	7
1500	5	5	5	5
1800	3	–	3	–

NOTES:
1. *The above tables give the allowable dead load for the various ceiling configurations. The calculated ceiling weight therefore does not have to be factored in accordance with AS/NZS 2785.*
2. *Connections to be independently checked.*
3. *Deflection limited to L/360.*
4. *Lining contribution has been ignored in analysis.*
5. *Refer to details on Page 15 for external suspended ceiling systems.*
6. *Ultimate limit state: 1.4G + 1.7U. Serviceability limit state: G + U.*