

Concealed Ceiling Systems



M27R Top Cross Rail

Can be rolled to create curved ceilings.



M534 Spring Hanger

Used for suspension of concealed ceiling systems



MBF Betafix Clip

For adjustment when fixing furring channel



M39 Locking Key

Primary coupling with unique thumb push tab providing ease of installation.



M520 Side Mount Spring Hanger

TCR suspension clip ideal for use in confined areas.



M534 Spring Hanger

With fixing holes for preliminary suspension of bulkheads and floating ceilings.

Concealed Ceiling Systems

The Studco Concealed Ceiling System is engineered to provide designers and installers with a flexible and secure system for a building board flush finish. Components are manufactured from galvanised steel, designed for safe handling, and easily clipped together to form gridwork where building boards can be simply fixed. Components such as battens, furring channels and top cross rail allows for a range of loading options and ceiling spans. Furring channel track reduces the need for suspended fixing at each end of the ceiling. For curved ceilings, top cross rail can be easily curved in either direction to various radii. Studco Concealed Ceiling Systems can be used for non-fire-rated or fire-rated applications and have been designed to meet the relevant Australian standards.

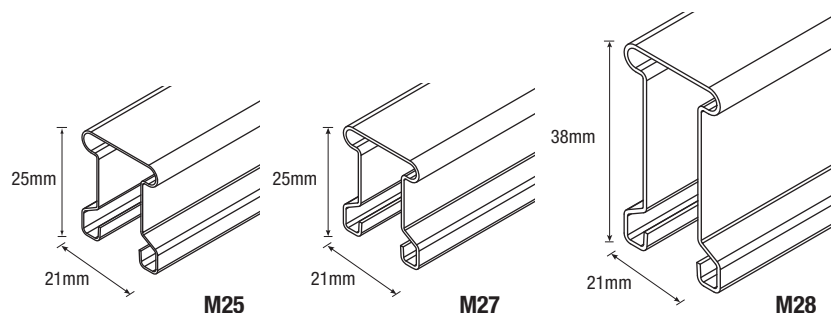
Components

Top Cross Rail

Table 1

PART No	DESCRIPTION
M25	25mm Top Cross Rail 0.55BMT
M27	25mm Top Cross Rail 0.75BMT *
M28	38mm Top Cross Rail 0.75BMT

* Available as a radius section



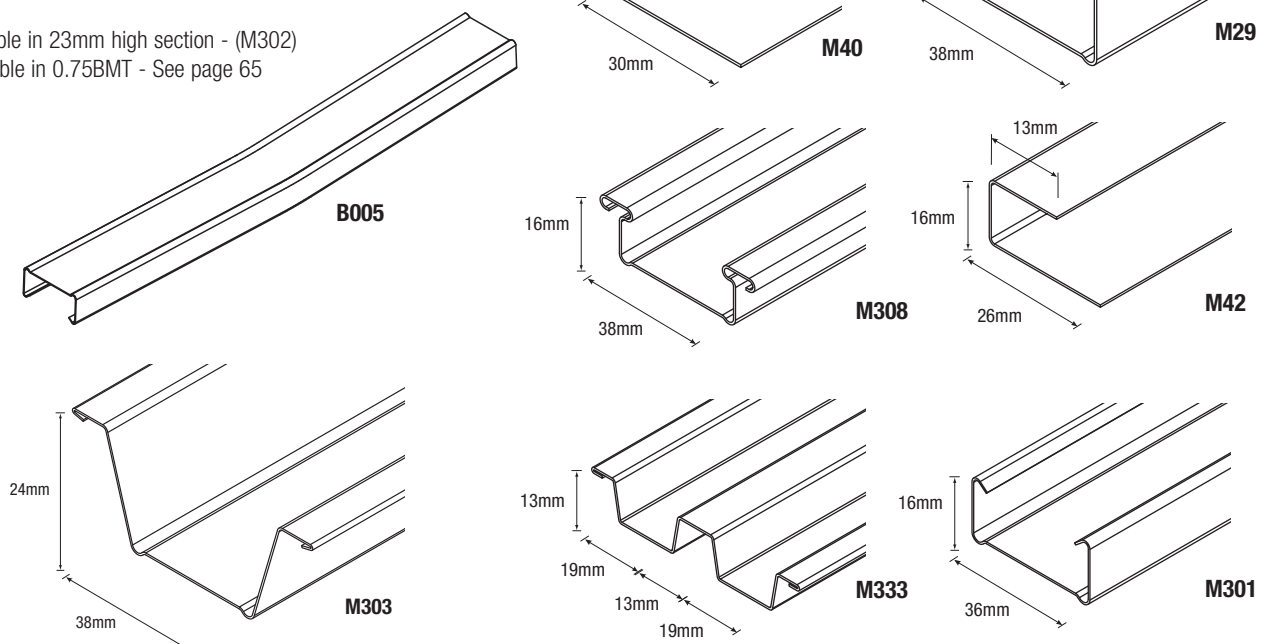
Furring Channel, Wall Track and Batten

Table 2

PART No	DESCRIPTION
M29	28mm Furring Channel
M308	16mm Furring Channel
M40	28mm Furring Channel Perimeter Track
M42	16mm Furring Channel Perimeter Track
M301	16mm Ceiling Batten *
M303	24mm Cyclonic Ceiling Batten #
B005	Back Blocking Batten

* Available in 23mm high section - (M302)

Available in 0.75BMT - See page 65

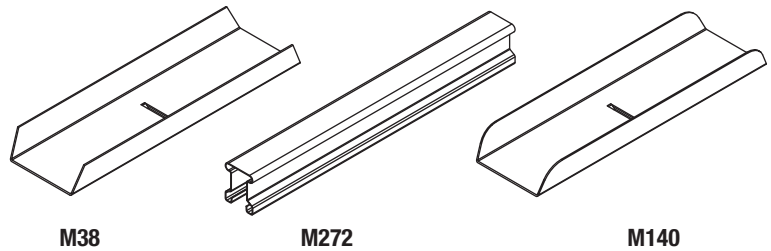


Concealed Ceiling Systems - Components

Section Joiners

Table 3

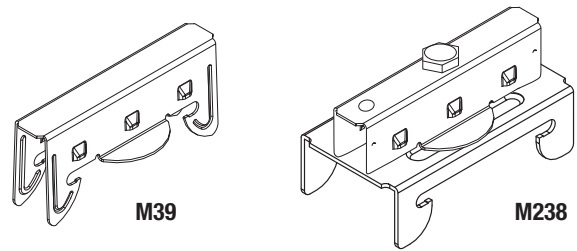
PART No	DESCRIPTION
M38	M29 Joiner
M272	M27/M25 Top Cross Joiner
M140	M301 Batten Joiner



Primary Couplings

Table 4

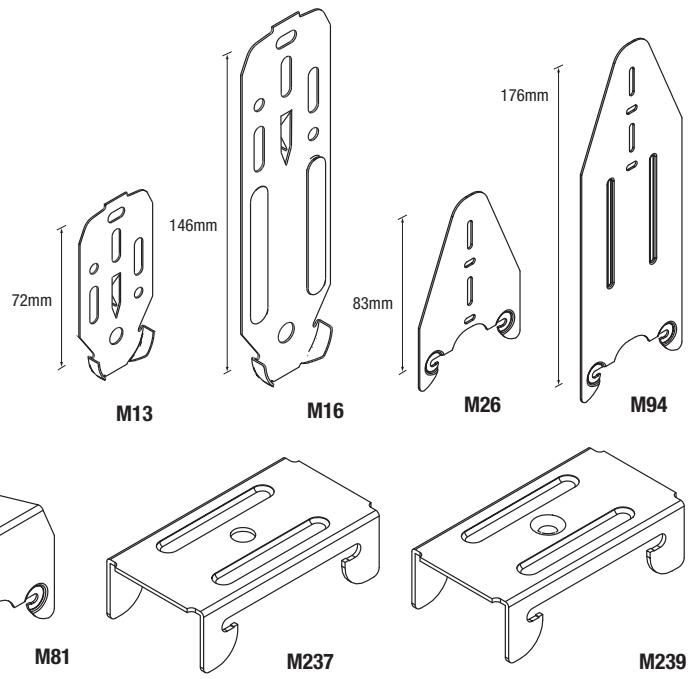
PART No	DESCRIPTION
M39	M29/M308 to M27/M28 Locking Key
M238	Swivel Locking Key



Direct Fix Clips

Table 5

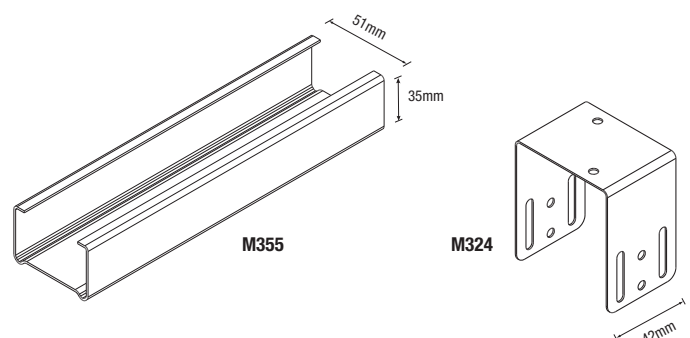
PART No	DESCRIPTION
M13	M301 Direct Fix Short
M16	M301 Direct Fix Long
M80	M301 Direct Fix Wall Clip
M26	M29/M308 Direct Fix Short
M94	M29/M308 Direct Fix Long
M81	M29/M308 Direct Fix Angle Bracket
M237	M29/M308 Wall Clip
M239	M29/M308 Wall Clip Threaded M6



Slimceil Components

Table 6

PART No	DESCRIPTION
M355	M355 Ceiling Channel 0.5mm
M324-2	Slimceil Ceiling Bracket 37-60mm *
M324-4	Slimceil Ceiling Bracket 52-75mm *
M324-6	Slimceil Ceiling Bracket 67-90mm *
M324-8	Slimceil Ceiling Bracket 82-105mm *



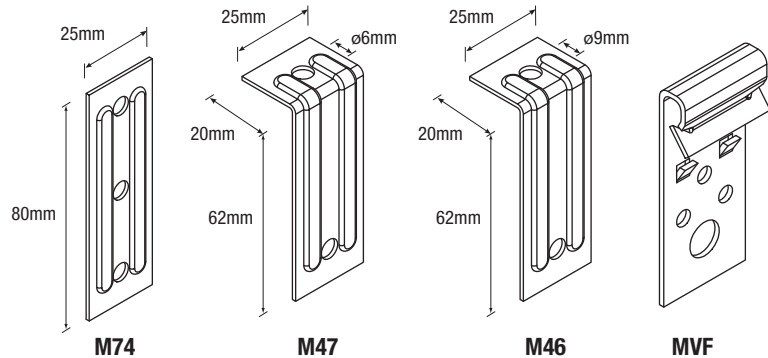
* Distance from concrete substrate to back face of plasterboard lining

Concealed Ceiling Systems - Components

Direct Fixing Clips

Table 7

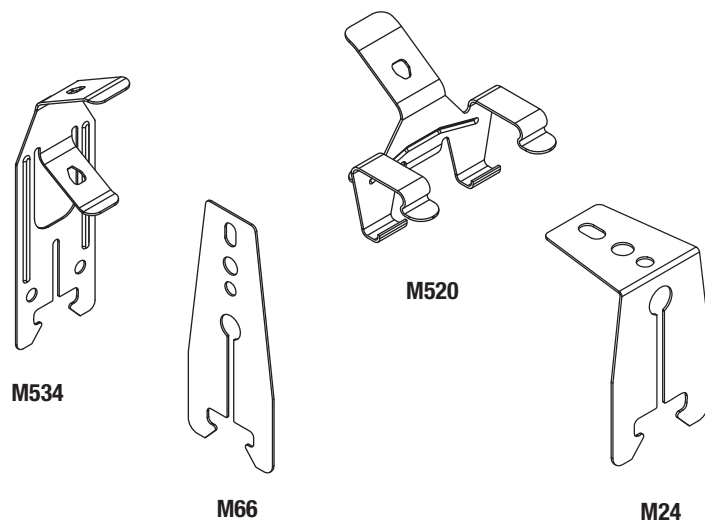
PART No	DESCRIPTION
M74	Rod Bracket
M47	Right Angle Rod Bracket
M46	Right Angle Rod Bracket
MVF	Purlin Clip



Primary Suspension Clips

Table 8

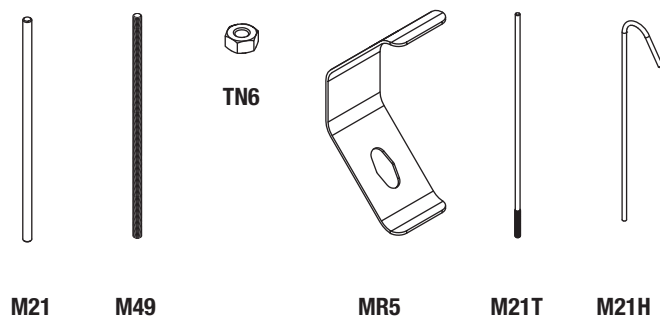
PART No	DESCRIPTION
M534	M27/M28 Spring Hanger
M520	M27 Side Mount Spring Hanger
M66	M27/M28 Direct Fix
M24	M27/M28 Direct Fix Right Angle



Suspension Rod

Table 9

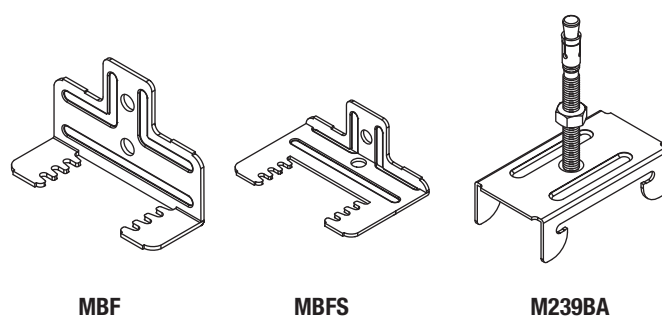
PART No	DESCRIPTION
M21	5mm Galvanized Rod
M49	6mm Threaded Rod
TN6	6mm Zinc Nuts
MR5	M21 Rod Joiner
M21T	5.2mm Galvanized Rod w/M6 Thread
M21H	5mm Galvanized Rod Hooked one end



Adjustable Clips

Table 10

PART No	DESCRIPTION
MBF	M29/M308 Adjustable Direct Fix
MBFS	M29/M308 Adjustable Direct Fix Long
M239BA	M29/M308 Direct Fix with Tru Bolt

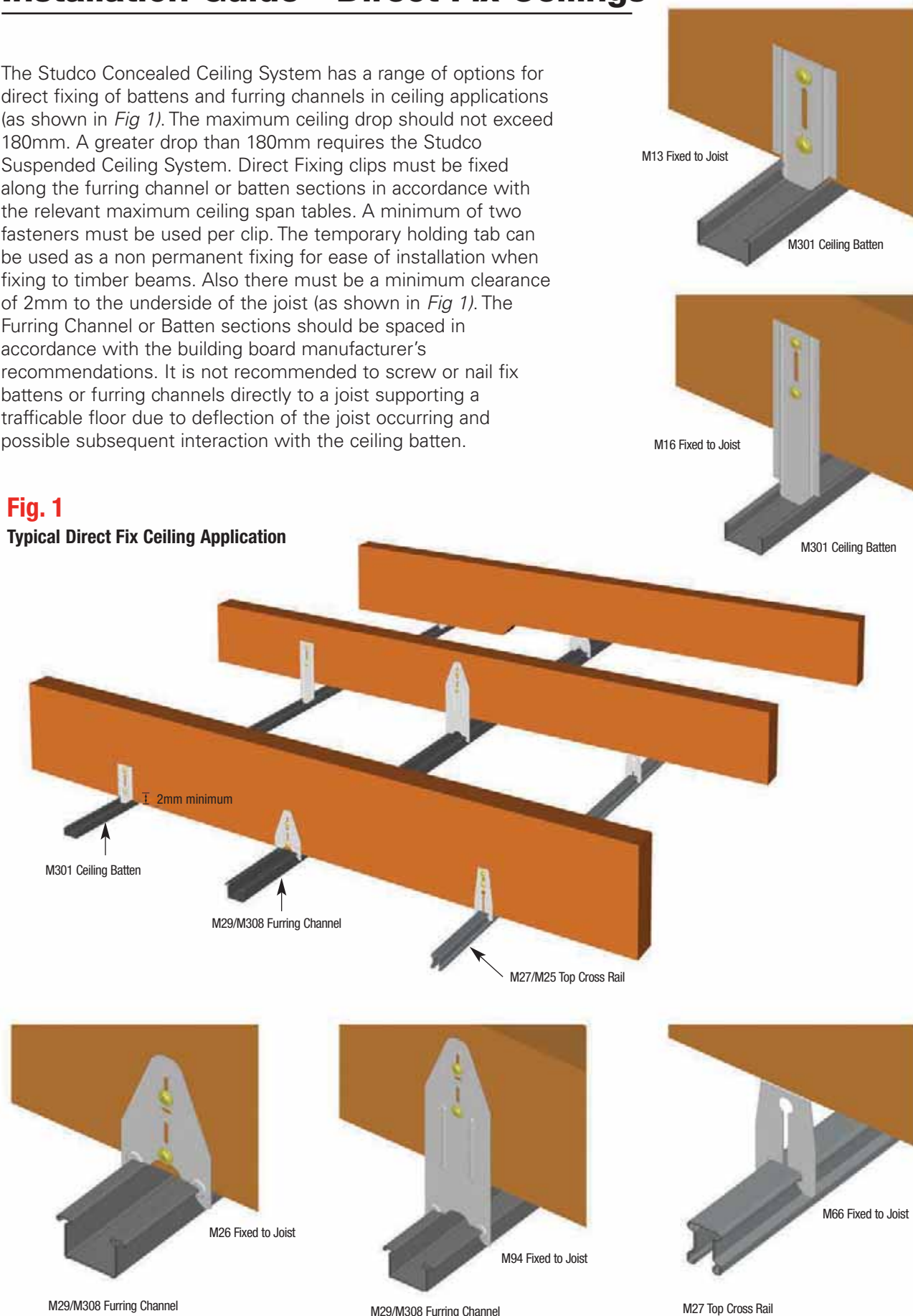


Installation Guide - Direct Fix Ceilings

The Studco Concealed Ceiling System has a range of options for direct fixing of battens and furring channels in ceiling applications (as shown in *Fig 1*). The maximum ceiling drop should not exceed 180mm. A greater drop than 180mm requires the Studco Suspended Ceiling System. Direct Fixing clips must be fixed along the furring channel or batten sections in accordance with the relevant maximum ceiling span tables. A minimum of two fasteners must be used per clip. The temporary holding tab can be used as a non permanent fixing for ease of installation when fixing to timber beams. Also there must be a minimum clearance of 2mm to the underside of the joist (as shown in *Fig 1*). The Furring Channel or Batten sections should be spaced in accordance with the building board manufacturer's recommendations. It is not recommended to screw or nail fix battens or furring channels directly to a joist supporting a trafficable floor due to deflection of the joist occurring and possible subsequent interaction with the ceiling batten.

Fig. 1

Typical Direct Fix Ceiling Application



Installation Guide - Direct Fix Ceilings and Walls

The Studco furring channels and battens together with the range of direct fixing clips are the most effective way of battening out of irregular walls in preparation for the fixing of the building boards. A combination of direct fix and adjustable clips may be used. (See Fig. 1). Adjustable clips can offset irregular surfaces up to 50mm (as shown in Fig. 2). Anchors should be selected in accordance with the manufacturers recommendations. Anchors should be spaced in accordance with Table 12.

Fig. 1

Typical Wall Batten Application

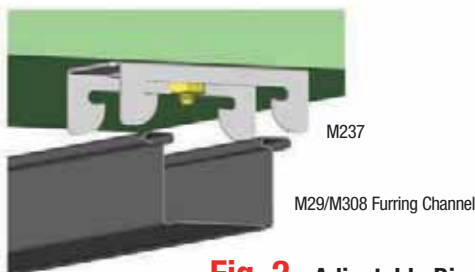
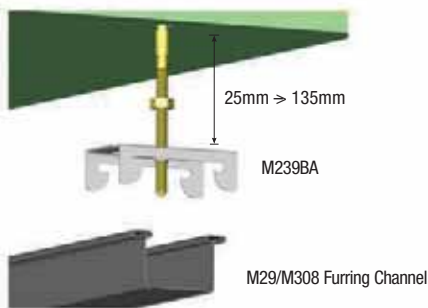
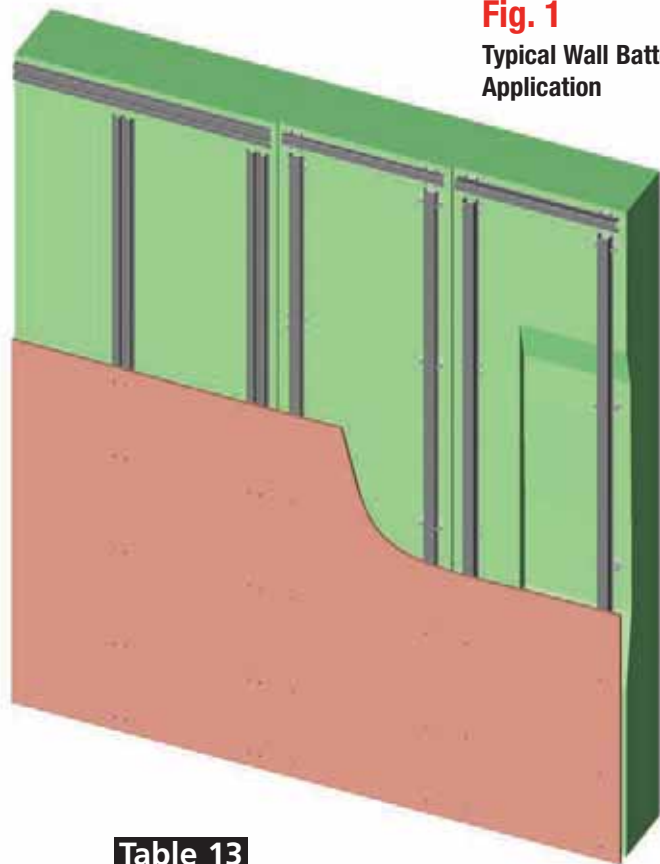


Fig. 2 Adjustable Direct Fix Clips - Wall Batten Application

Table 13

MAXIMUM ANCHOR SPACING	
FURRING CHANNEL	ANCHOR SPACING
M333 13mm Recessed Furring Channel	900mm
M29 28mm Furring Channel	1200mm
M308 16mm Furring Channel	900mm

Note: The above spacings may not be suitable for high traffic areas or external applications.

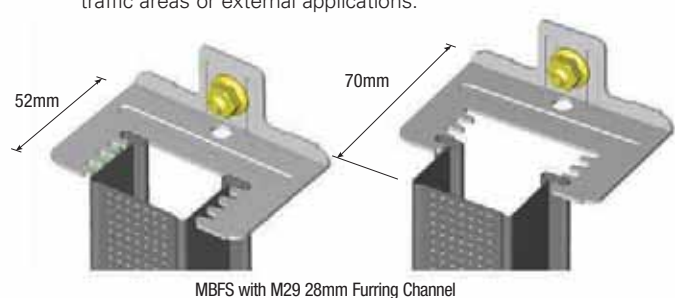
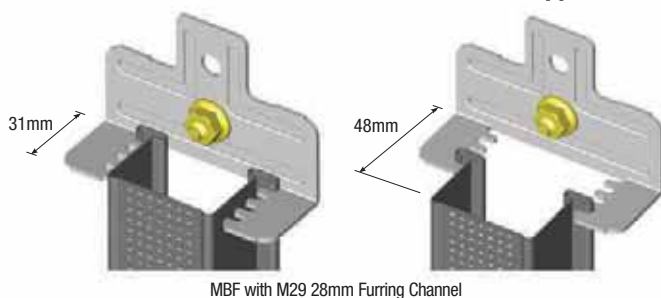


Table 11

MAXIMUM POSITION		
ADJUSTABLE DIRECT FIX CLIP	FURRING CHANNEL	MEASUREMENT rear of clip to face of furring channel
MBFS	M29 28mm Furring Channel	70mm
MBFS	M308 16mm Furring Channel	58mm
MBF	M29 28mm Furring Channel	48mm
MBF	M308 16mm Furring Channel	36mm

Table 12

MINIMUM POSITION		
ADJUSTABLE DIRECT FIX CLIP	FURRING CHANNEL	MEASUREMENT rear of clip to face of furring channel
MBF	M308 16mm Furring Channel	19mm
MBF	M29 28mm Furring Channel	31mm
MBFS	M308 16mm Furring Channel	40mm
MBFS	M29 28mm Furring Channel	52mm

Installation Guide - Suspended Ceilings

Fig. 1 Furring Channel Joiner

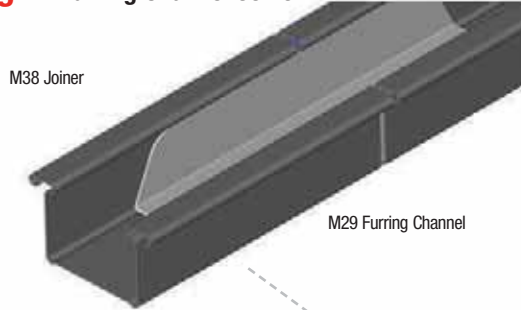


Fig. 2 Batten Joiner

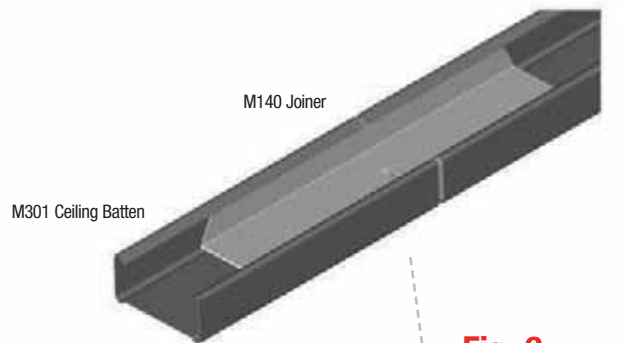


Fig. 7 Wall Track Fixing Detail

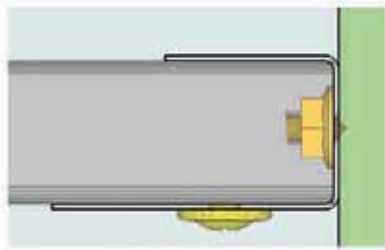


Fig. 6 Primary Channel Connection to Furring Channel

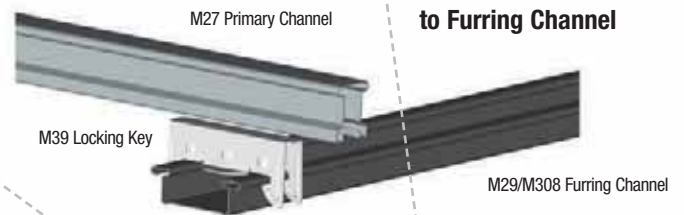
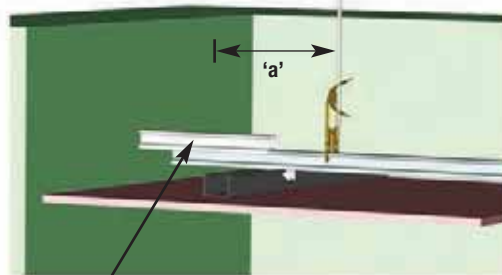


Fig. 8 Stabilising The System



M272 Joiner - At wallend for stability

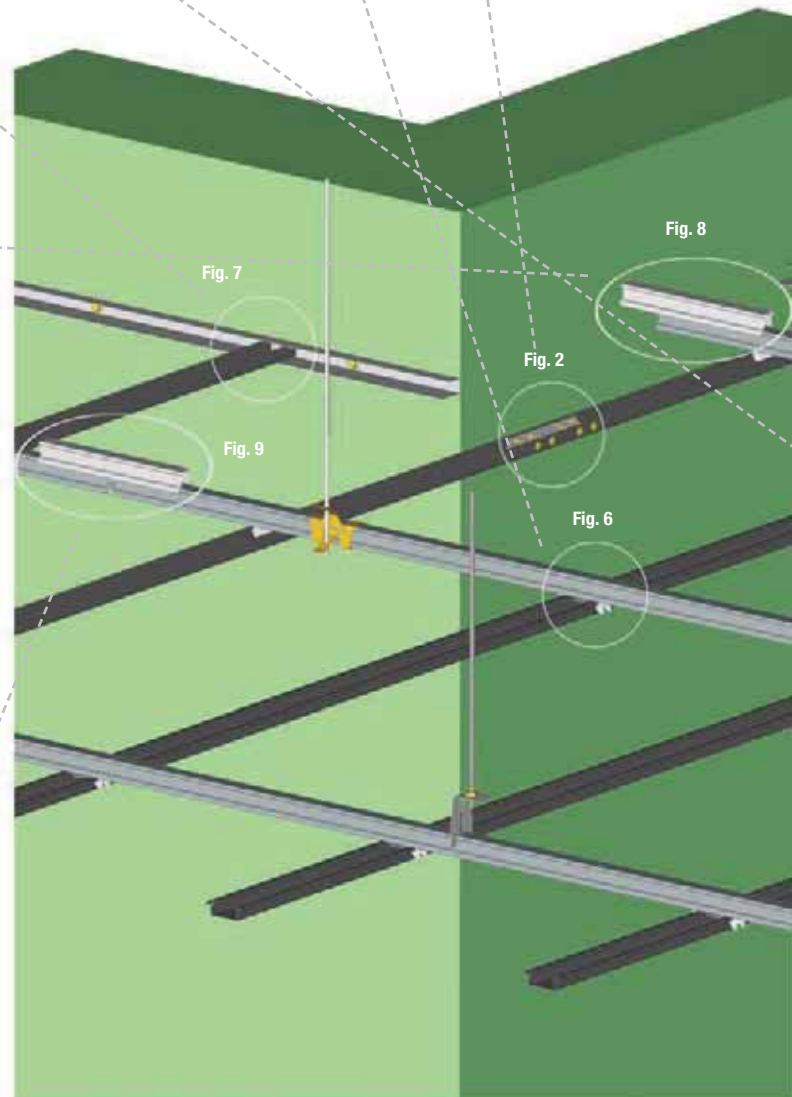
Table 14

FIRST HANGER POSITION	
TOP CROSS RAIL	'a' MAXIMUM
M25 25mm Top Cross Rail 0.55BMT	300mm
M27 25mm Top Cross Rail 0.75BMT	400mm
M28 38mm Top Cross Rail	400mm

* For one layer of plasterboard



Fig. 9 Top Cross Rail Joiner



Installation Guide - Curved & Raked Ceilings

Fig. 1
Curved Ceilings

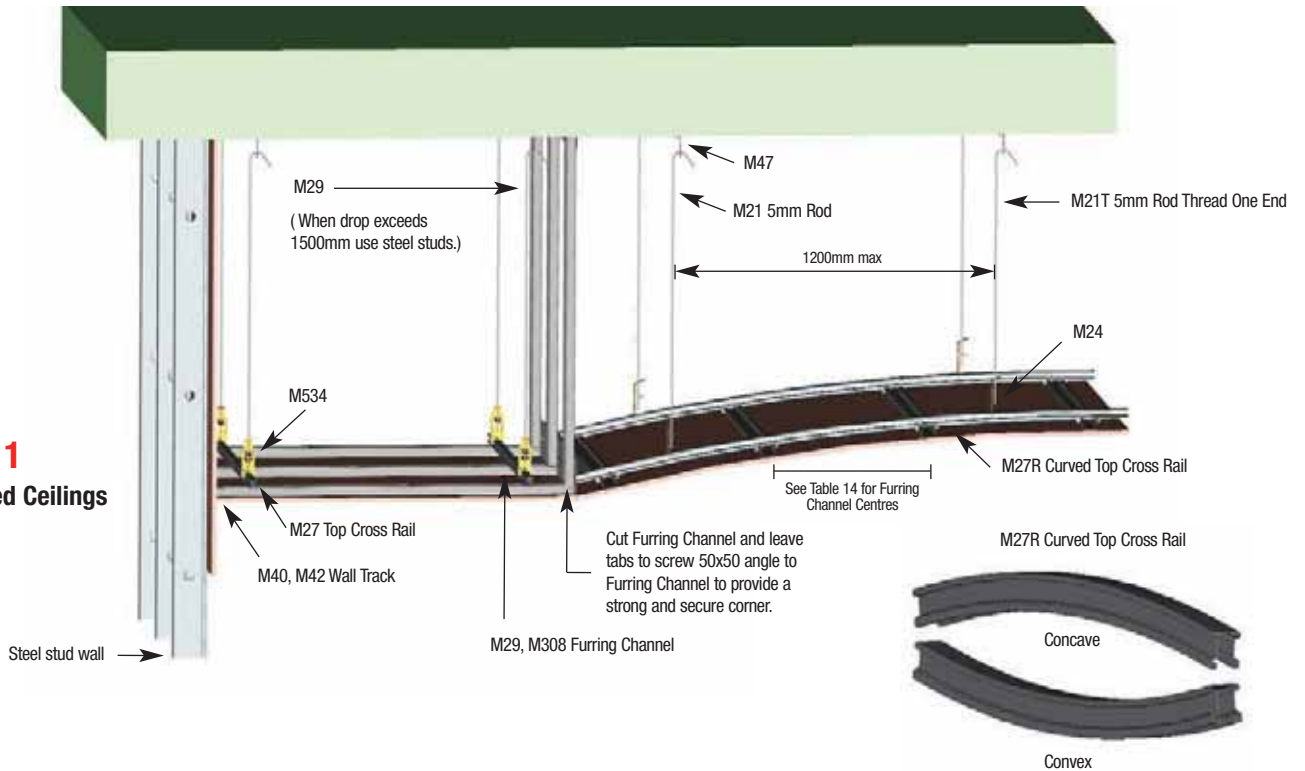


Table 15

FURRING CHANNEL CENTRES - CURVED CEILINGS							
PLASTERBOARD THICKNESS	CEILING RADIUS						
	900mm-1000mm	1000mm-1500mm	1500mm-2000mm	2000-2500mm	2500-3000mm	3000mm-4000mm	4000mm
	MAXIMUM FURRING CHANNEL CENTRES						
6.5mm	150mm	200mm	250mm	300mm	350mm	450mm	550mm
10mm	150mm	200mm	250mm	300mm	350mm	400mm	500mm
13mm	--	150mm	200mm	250mm	300mm	400mm	500mm
16mm	--	--	--	--	--	250mm	350mm

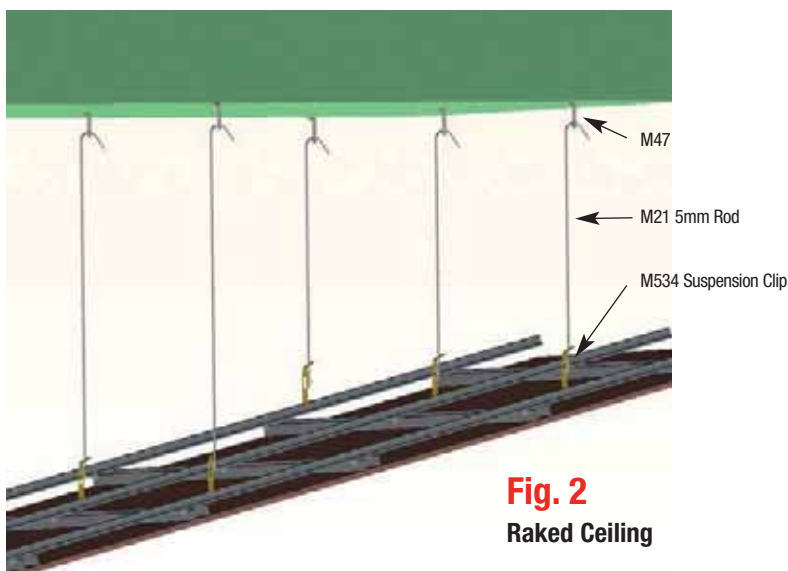
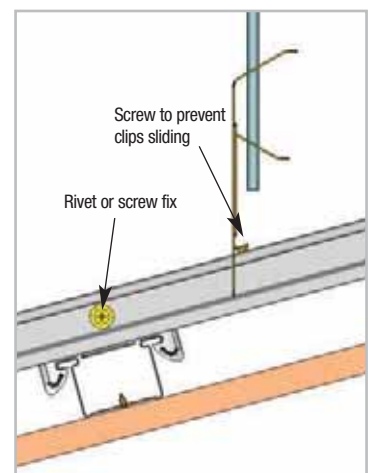


Fig. 2
Raked Ceiling



Installation Guide - External Suspended Ceilings

Certain components from Studco's Concealed Ceiling System are approved for installation in external applications, when due consideration is taken for external wind conditions.

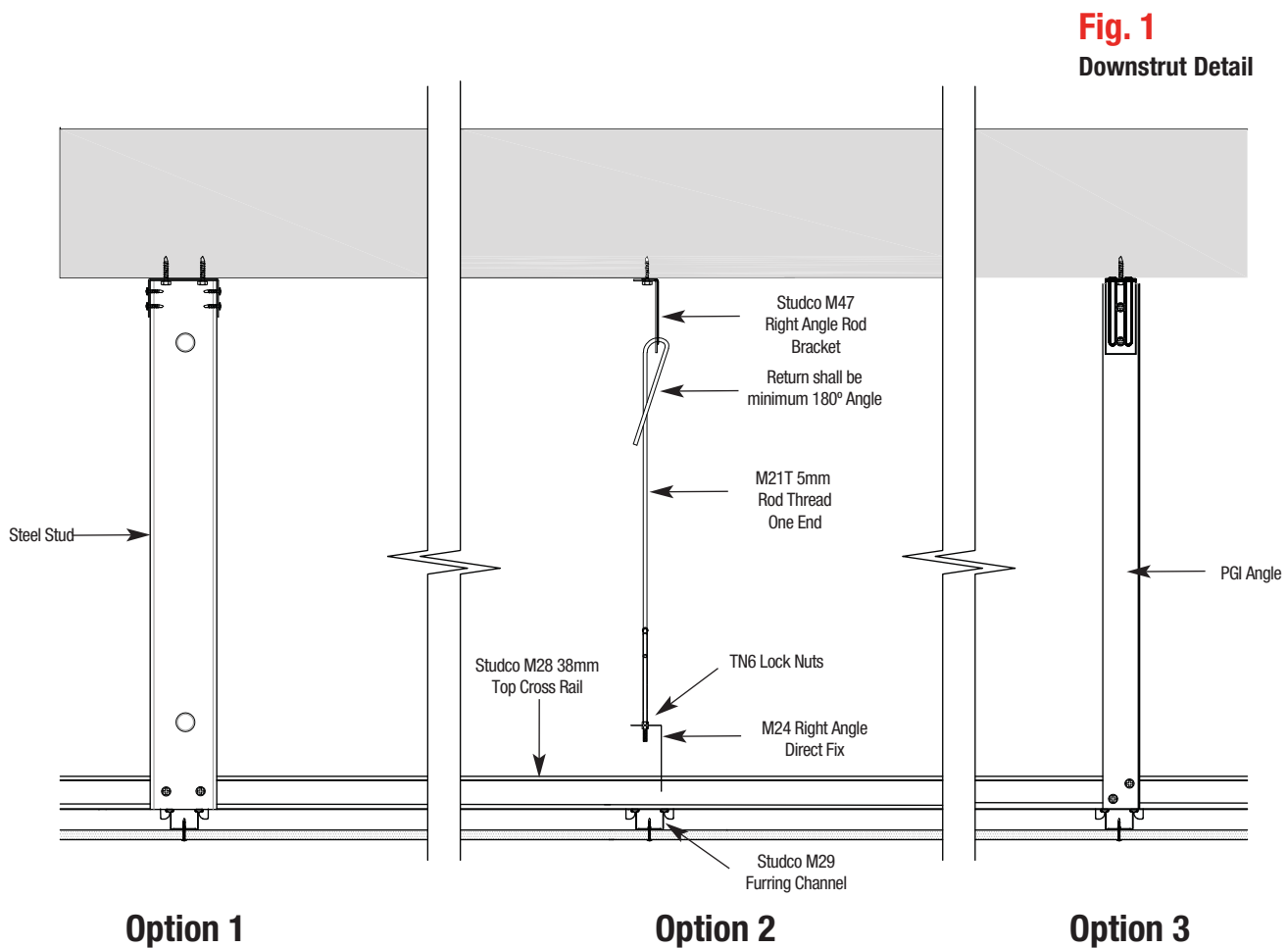
You will need to first determine what is the design pressure of limit state for the ceiling location. This information needs to be determined by a suitable qualified engineer in accordance with AS/NZS1170.2 and AS/NZS 2785.

Suspending the ceiling system using a rigid down strut provides the necessary support against additional upward wind loads often experienced in external ceilings applications. Three different down strut options are shown in Fig 1. Additional options are available from Studco on request.

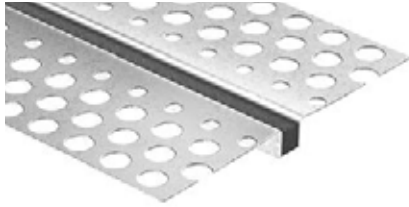
The recommended top cross rail profile for all external applications is Studco M28 top cross rail (38mm high x 0.75 BMT galvanized steel).

Adjustable friction-fit components, such as the Studco M534 and M520 spring hangers, are generally not suitable for use in external applications. The 25mm high top cross rail profiles, such as the Studco M25 and M27, should not be used in external applications either.

Please contact Studco technical team for external ceiling design specifications.



Installation Guide - Expansion Joints



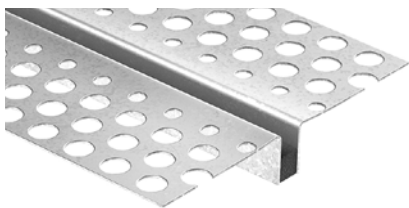
EJ06 Expansion Joint 6mm



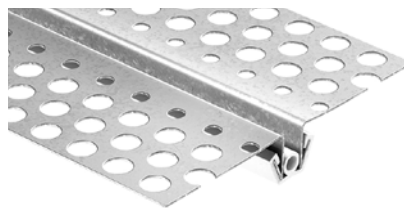
PEJ93 PVC Expansion Joint with Zip Strip



PE127 PVC Hideaway Expansion Joint with Zip Strip

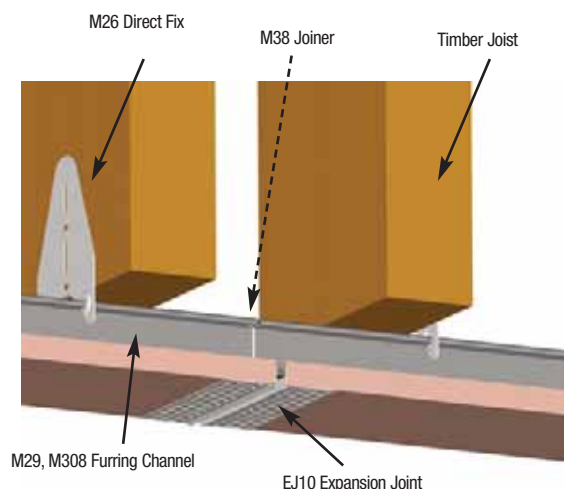
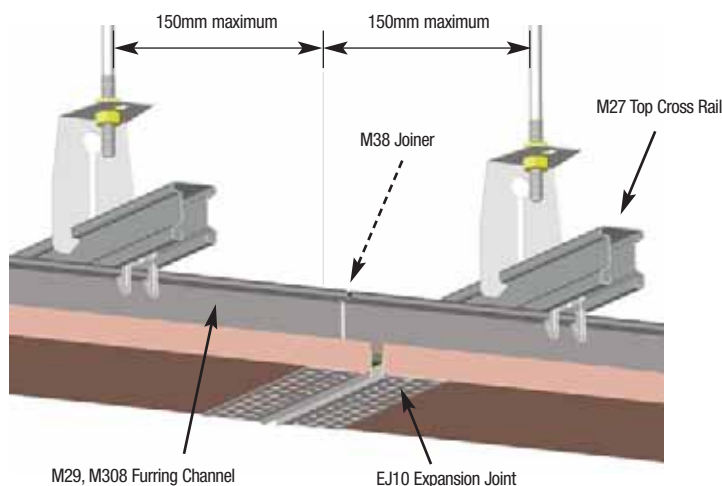
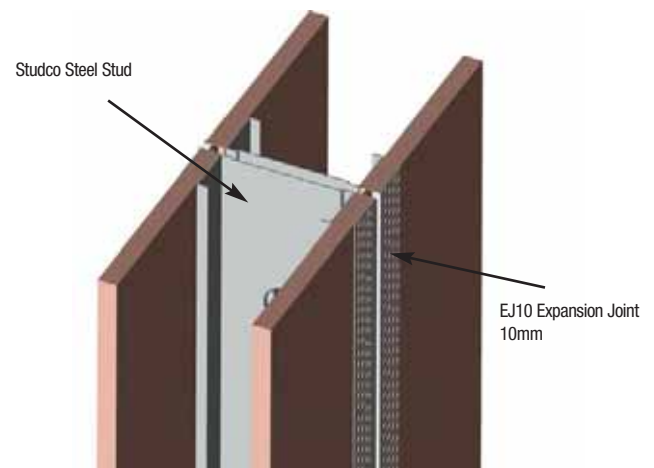


EJ10 Expansion Joint 10mm



EJ35 Expansion Joint 35mm

Expansion joints are required in walls and/or ceilings in order to accommodate movements in the building structure due to shrinkage, settlement, wind or seismic forces. Building board manufacturers recommend that expansion joints are required in unbroken walls and ceilings at no greater than 12 metre centres. The metal stopping bead on the Studco EJ06 and the EJ10 expansion joints are connected with a close cell neoprene sponge infill providing movement in all directions. These expansion joints also provide excellent acoustic isolation. Contact Studco Technical Services for more information.



Installation Guide - Slimceil

SLIMCEIL®
LOW CLEARANCE CEILING SYSTEMS

Concealed Ceiling Systems

The Studco SLIMCEIL ceiling system is a solution for compact ceiling cavities. The Studco SLIMCEIL Ceiling System consists of a C-channel section and a series of four brackets, designed to provide adjustable stand-off points for fixing the channel. The bracket range provides an overlapping series that covers ceiling cavities from 37mm through to 105mm. It's the simple, easy to install and fast answer to small ceiling cavities. Greater load strength can be achieved using the SLIMCEIL system, refer to table 18 for load ratings.

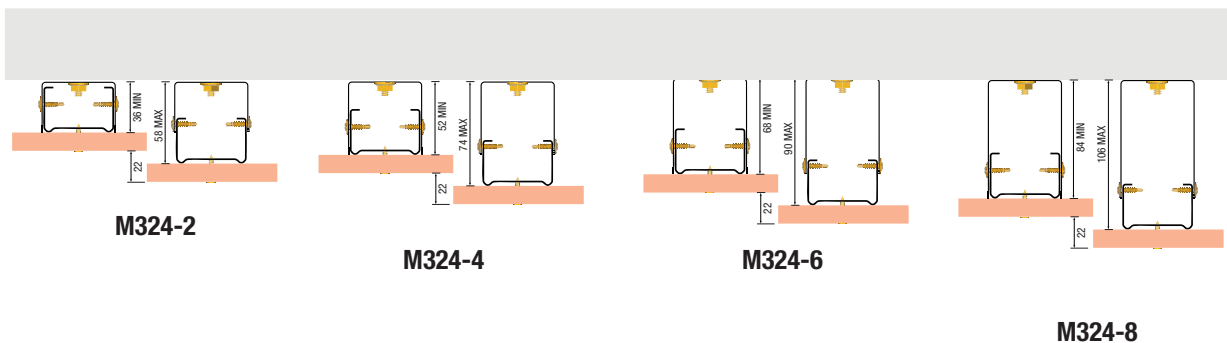
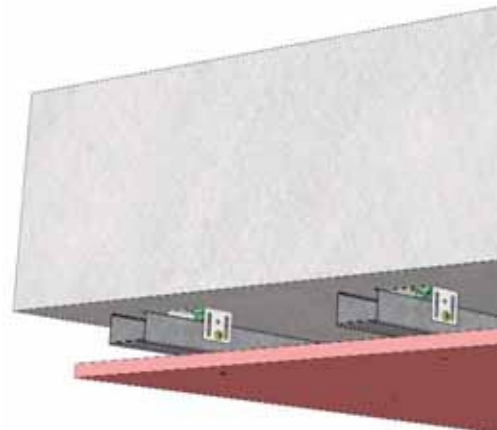


Table 17

Part No.	CEILING BRACKETS	Cavity dist. mm.	Approx kg/pce	Material Thickness	Material Grade
M324-2	M324 Ceiling Bracket	37-60*	0.03	0.75BMT	G300
M324-4	M324 Ceiling Bracket	52-75*	0.04	0.75BMT	G300
M324-6	M324 Ceiling Bracket	67-90*	0.05	0.75BMT	G300
M324-8	M324 Ceiling Bracket	82-105*	0.06	0.75BMT	G300

* This is the distance between the concrete substrate and the back face of the plasterboard lining. Example: for a 85mm overall ceiling cavity using one layer of 13mm plasterboard, use a M324-4 Ceiling Bracket (85mm - 13mm = 72mm [bracket is adjustable 52~75mm]).



Span Tables - M355 35mm Ceiling Channel

Table 18

SLIMCEIL CEILING LOAD TABLE		
M355 Channel Spacing	450mm	600mm
M324 Bracket Fixing Spacing	Maximum Ceiling Weight – kg per sqm.	
900mm	85 kg/m ²	64 kg/m ²
1200mm	47 kg/m ²	34 kg/m ²

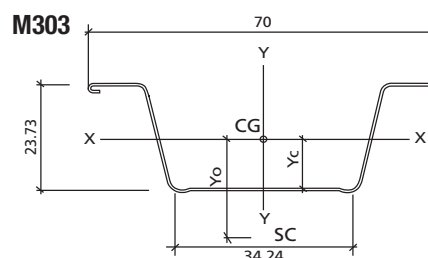
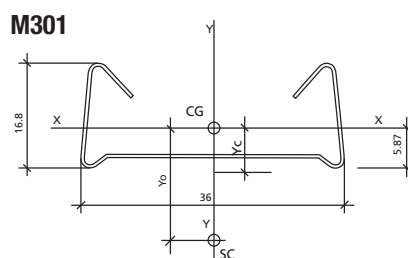
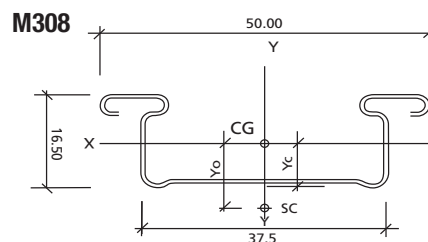
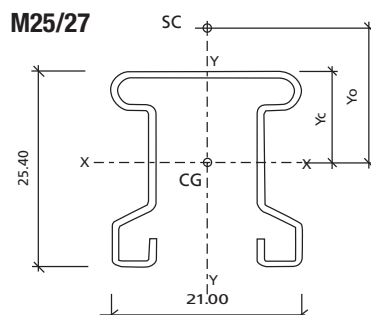
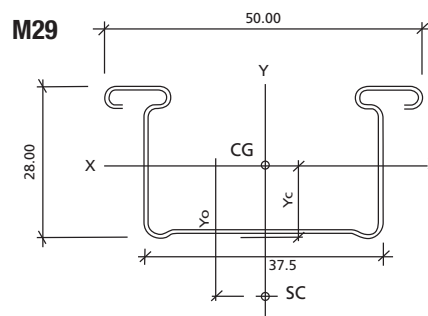
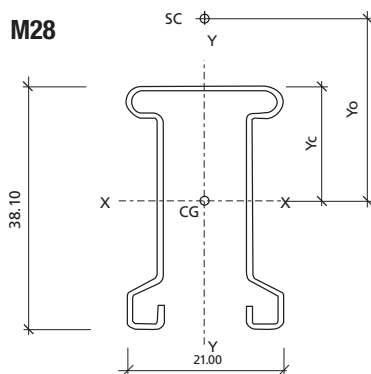
Section Properties and Dimensions

Table 19

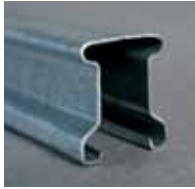
CONCEALED CEILING SECTIONS PROPERTIES AND DIMENSIONS												
Section	BMT mm	Area mm ²	Yc mm	Yo mm	Ixx mm ⁴ ×10 ³	Iyy mm ⁴ ×10 ³	Zxx mm ³	Zyy mm ³	rx mm	ry mm	Iw mm ⁶ ×10 ⁶	J mm ³
M29	0.5	60.73	13.45	24.28	7.19	17.74	494	710	10.88	17.09	1.59	5.06
M308	0.5	49.45	7.28	12.93	2.02	13.89	231	556	6.39	16.76	0.42	4.12
M25	0.55	50.37	11.73	21.61	4.14	2.78	303	265	9.06	7.43	0.24	5.08
M27	0.75	68.69	11.73	21.90	5.64	3.80	413	362	9.06	7.43	0.33	12.88
M28	0.75	87.74	17.95	36.41	15.84	4.48	786	426	13.44	7.14	0.74	16.45
M303	0.42	45.92	11.07	21.93	4.34	19.93	336	585	9.72	20.83	0.59	2.70
M301	0.45	34.20	5.85	15.38	0.96	6.28	94.76	358	5.30	13.55	0.333	2.31

Notes:

1. The above tables show the gross section properties. Designs using these tables need to be checked in accordance with AS/NZS4600.
2. Properties may vary because of manufacturing tolerances, total material used will not vary.
3. All section capacity calculated based on effective section at yield.



Span Tables - M25 Top Cross Rail



M25
25mm Top Cross Rail
0.55 BMT

Table 20

MAXIMUM CEILING LOAD-M25 TOP CROSS RAIL SPAN: 900mm				
FURRING CHANNEL	M29		M308	
Furring Channel Spacing	450mm	600mm	450mm	600mm
Top Cross Rail Spacing	Maximum Ceiling Weight – kg per sqm.			
900mm	50.00	49.00	36.00	29.50
1200mm	34.50	33.50	15.50	11.00
1500mm	21.50	15.00	7.00	5.00
1800mm	9.50	6.50	N/A	N/A

Table 21

MAXIMUM CEILING LOAD-M25 TOP CROSS RAIL SPAN: 1200mm				
FURRING CHANNEL	M29		M308	
Furring Channel Spacing	450mm	600mm	450mm	600mm
Top Cross Rail Spacing	Maximum Ceiling Weight – kg per sqm.			
900mm	20.00	19.50	19.50	18.50
1200mm	13.50	13.00	12.50	11.00
1500mm	11.00	10.50	7.00	4.50
1800mm	9.00	6.00	N/A	N/A

Table 22

MAXIMUM CEILING LOAD-M25 TOP CROSS RAIL SPAN: 1500mm				
FURRING CHANNEL	M29		M308	
Furring Channel Spacing	450mm	600mm	450mm	600mm
Top Cross Rail Spacing	Maximum Ceiling Weight – kg per sqm.			
900mm	9.50	9.50	9.00	9.00
1200mm	6.00	6.00	5.50	5.50
1500mm	4.00	4.00	4.00	4.00
1800mm	N/A	N/A	N/A	N/A

Notes:

- Span tables are based on the effective section properties as per AS/NZS 4600.
- Tables 20-28 are for Internal applications with a maximum design pressure of 0.25 kPa as per BCA 2009.

Span Tables - M27 Top Cross Rail



M27
 25mm Top Cross Rail
 0.75 BMT

Table 23

MAXIMUM CEILING LOAD-M27 TOP CROSS RAIL SPAN: 900mm				
FURRING CHANNEL	M29		M308	
Furring Channel Spacing	450mm	600mm	450mm	600mm
Top Cross Rail Spacing	Maximum Ceiling Weight – kg per sqm.			
900mm	67.00	66.00	41.00	30.50
1200mm	47.00	36.00	15.50	11.00
1500mm	22.00	16.00	6.50	4.50
1800mm	10.00	6.50	N/A	N/A

Table 24

MAXIMUM CEILING LOAD-M27 TOP CROSS RAIL SPAN: 1200mm				
FURRING CHANNEL	M29		M308	
Furring Channel Spacing	450mm	600mm	450mm	600mm
Top Cross Rail Spacing	Maximum Ceiling Weight – kg per sqm.			
900mm	28.00	28.00	26.00	25.50
1200mm	19.50	19.50	14.50	11.50
1500mm	15.50	15.00	6.50	4.50
1800mm	10.00	6.00	N/A	N/A

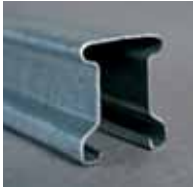
Table 25

MAXIMUM CEILING LOAD-M27 TOP CROSS RAIL SPAN: 1500mm				
FURRING CHANNEL	M29		M308	
Furring Channel Spacing	450mm	600mm	450mm	600mm
Top Cross Rail Spacing	Maximum Ceiling Weight – kg per sqm.			
900mm	13.00	13.00	12.50	12.00
1200mm	9.50	9.00	9.00	9.00
1500mm	6.50	6.50	6.00	5.00
1800mm	5.50	5.50	N/A	N/A

Notes:

- Span tables are based on the effective section properties as per AS/NZS 4600.
- Tables 20-28 are for Internal applications with a maximum design pressure of 0.25 kPa as per BCA 2009.

Span Tables - M28 Top Cross Rail



M28
38mm Top Cross Rail
0.75 BMT

Table 26

MAXIMUM CEILING LOAD-M28 TOP CROSS RAIL SPAN: 1200mm				
FURRING CHANNEL	M29		M308	
Furring Channel Spacing	450mm	600mm	450mm	600mm
Top Cross Rail Spacing	Maximum Ceiling Weight – kg per sqm.			
900mm	55.00	51.00	41.00	31.00
1200mm	39.00	37.50	16.50	12.50
1500mm	23.00	16.50	7.50	5.00
1800mm	11.50	7.00	N/A	N/A

Table 27

MAXIMUM CEILING LOAD-M28 TOP CROSS RAIL SPAN: 1500mm				
FURRING CHANNEL	M29		M308	
Furring Channel Spacing	450mm	600mm	450mm	600mm
Top Cross Rail Spacing	Maximum Ceiling Weight – kg per sqm.			
900mm	25.00	23.00	23.00	22.00
1200mm	18.00	17.00	15.50	12.00
1500mm	15.00	16.00	7.50	5.00
1800mm	10.50	7.00	N/A	N/A

Table 28

MAXIMUM CEILING LOAD-M28 TOP CROSS RAIL SPAN: 1800mm				
FURRING CHANNEL	M29		M308	
Furring Channel Spacing	450mm	600mm	450mm	600mm
Top Cross Rail Spacing	Maximum Ceiling Weight – kg per sqm.			
900mm	15.00	13.00	12.00	11.00
1200mm	10.00	9.00	8.00	7.00
1500mm	8.00	7.00	6.00	5.00
1800mm	5.00	4.00	N/A	N/A

Notes:

1. Span tables are based on the effective section properties as per AS/NZS 4600.
2. Tables 20-28 are for Internal applications with a maximum design pressure of 0.25 kPa as per BCA 2009.

Span Tables - M29 Furring Channel - Direct Fix



M29
28mm Furring Channel

Table 29

MAXIMUM SPANS - WIND LOADS N1/N2 - M29 28mm FURRING CHANNEL DIRECT FIX				
FURRING CHANNEL SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	1270mm	1170mm	1730mm	1605mm
1 layer 13mm	1230mm	1140mm	1690mm	1560mm
1 layer 16mm	1200mm	1120mm	1650mm	1525mm
2 layers 10mm	1170mm	1070mm	1605mm	1475mm
2 layers 13mm	1150mm	1060mm	1580mm	1450mm
2 layers 16mm	1100mm	1020mm	1525mm	1400mm

Table 30

MAXIMUM SPANS - WIND LOADS N3/C1 - M29 28mm FURRING CHANNEL DIRECT FIX				
FURRING CHANNEL SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	1140mm	1060mm	1570mm	1450mm
1 layer 13mm	1115mm	1040mm	1540mm	1420mm
1 layer 16mm	1100mm	1020mm	1515mm	1400mm
2 layers 10mm	1075mm	995mm	1475mm	1365mm
2 layers 13mm	1060mm	980mm	1460mm	1350mm
2 layers 16mm	1030mm	960mm	1415mm	1320mm

Table 31

MAXIMUM SPANS - WIND LOADS N4/C2 - M29 28mm FURRING CHANNEL DIRECT FIX				
FURRING CHANNEL SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	850mm	775mm	1200mm	1050mm
1 layer 13mm	860mm	785mm	1210mm	1060mm
1 layer 16mm	870mm	790mm	1218mm	1070mm
2 layers 10mm	880mm	805mm	1235mm	1075mm
2 layers 13mm	890mm	810mm	1240mm	1090mm
2 layers 16mm	900mm	815mm	1255mm	1105mm

Table 32

MAXIMUM SPANS - WIND LOADS N5/C3 - M29 28mm FURRING CHANNEL DIRECT FIX				
FURRING CHANNEL SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	725mm	650mm	925mm	800mm
1 layer 13mm	735mm	660mm	935mm	810mm
1 layer 16mm	745mm	670mm	945mm	820mm
2 layers 10mm	760mm	685mm	960mm	835mm
2 layers 13mm	765mm	690mm	965mm	840mm
2 layers 16mm	778mm	700mm	980mm	870mm

Notes:

- Span tables are based on the effective section properties as per AS/NZS 4600.
- Strength and serviceability criteria compliant.
- Serviceability deflection limit L/300.
- Tables 29-42 for external/internal applications and relative to wind class as per AS 1170.1, 1170.2 and AS/NZS 4600.
- Wind classification as per AS 4055.

Span Tables - M308 Furring Channel - Direct Fix



M308
16mm Furring Channel

Table 33

MAXIMUM SPANS - WIND LOADS N1/N2- M308 16mm FURRING CHANNEL DIRECT FIX				
FURRING CHANNEL SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	1040mm	950mm	1380mm	1260mm
1 layer 13mm	1010mm	930mm	1350mm	1240mm
1 layer 16mm	960mm	905mm	1320mm	1200mm
2 layers 10mm	910mm	850mm	1150mm	1015mm
2 layers 13mm	900mm	840mm	1160mm	1010mm
2 layers 16mm	850mm	760mm	1100mm	1005mm

Table 34

MAXIMUM SPANS - WIND LOADS N3/C1 - M308 16mm FURRING CHANNEL DIRECT FIX				
FURRING CHANNEL SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	910mm	830mm	1250mm	1140mm
1 layer 13mm	900mm	820mm	1220mm	1120mm
1 layer 16mm	890mm	800mm	1205mm	1100mm
2 layers 10mm	850mm	760mm	1150mm	1110mm
2 layers 13mm	840mm	750mm	1110mm	1050mm
2 layers 16mm	820mm	740mm	1100mm	1015mm

Table 35

MAXIMUM SPANS - WIND LOADS N4/C2 - M308 16mm FURRING CHANNEL DIRECT FIX				
FURRING CHANNEL SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	740mm	640mm	990mm	890mm
1 layer 13mm	750mm	650mm	1000mm	900mm
1 layer 16mm	760mm	660mm	1010mm	910mm
2 layers 10mm	770mm	670mm	1020mm	920mm
2 layers 13mm	780mm	680mm	1030mm	930mm
2 layers 16mm	800mm	700mm	1050mm	945mm

Table 36

MAXIMUM SPANS - WIND LOADS N5/C3 - M308 16mm FURRING CHANNEL DIRECT FIX				
FURRING CHANNEL SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	640mm	590mm	840mm	790mm
1 layer 13mm	650mm	610mm	850mm	800mm
1 layer 16mm	660mm	620mm	860mm	810mm
2 layers 10mm	670mm	630mm	870mm	820mm
2 layers 13mm	680mm	640mm	880mm	830mm
2 layers 16mm	705mm	650mm	900mm	850mm

Notes:

1. Span tables are based on the effective section properties as per AS/NZS 4600.
2. Strength and serviceability criteria compliant.
3. Serviceability deflection limit L/300.
4. Tables 29-42 for external/internal applications and relative to wind class as per AS 1170.1, 1170.2 and AS/NZS 4600.
5. Wind classification as per AS 4055.

Span Tables - M301 Batten - Direct Fix



M301
16mm Ceiling Batten

Table 37

MAXIMUM SPANS - WIND LOADS N1/N2 - M301 16mm CEILING BATTEN DIRECT FIX				
BATTEN SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	970mm	920mm	1200mm	1200mm
1 layer 13mm	970mm	920mm	1200mm	1200mm

Table 38

MAXIMUM SPANS - WIND LOADS N3/C1 - M301 16mm CEILING BATTEN DIRECT FIX				
BATTEN SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	910mm	820mm	1200mm	1120mm
1 layer 13mm	910mm	820mm	1200mm	1110mm

Notes:

1. Span tables are based on the effective section properties as per AS/NZS 4600.
2. Strength and serviceability criteria compliant.
3. Serviceability deflection limit L/300.
4. Tables 29-42 for external/internal applications and relative to wind class as per AS 1170.1, 1170.2 and AS/NZS 4600.
5. Wind classification as per AS 4055.

WIND CLASSIFICATIONS

N1/N2	COVERS GENERAL SUBURBAN HOUSING
N3/C1	COVERS EXPOSED OPEN TERRAIN OR ON TOP OF RIDGES SUBURBAN AREA IN CYCLONIC AREAS
N4/C2	VERY EXPOSED OVERLOOKING THE COASTLINE OPEN TERRAIN IN CYCLONIC AREAS
N5/C3	MAINLY RELATES TO VERY EXPOSED CYCLONIC CONDITIONS INCLUDING FAR NORTH QUEENSLAND AND PORT HEDLAND

Span Tables - M303 Batten - Direct Fix



M303
24mm Cyclonic
Ceiling Batten

Table 39

MAXIMUM SPANS - WIND LOADS N1/N2 - M303 24mm CYCLONIC CEILING BATTEN DIRECT FIX				
BATTEN SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	970mm	890mm	1350mm	1250mm
1 layer 13mm	940mm	870mm	1290mm	1200mm
1 layer 16mm	920mm	850mm	1260mm	1160mm
2 layers 13mm	880mm	810mm	1200mm	1110mm
2 layers 16mm	860mm	780mm	1160mm	1070mm

Table 40

MAXIMUM SPANS - WIND LOADS N3/C1 - M303 24mm CYCLONIC CEILING BATTEN DIRECT FIX				
BATTEN SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	870mm	810mm	1200mm	1110mm
1 layer 13mm	860mm	800mm	1180mm	1090mm
1 layer 16mm	850mm	780mm	1150mm	1070mm
2 layers 13mm	820mm	750mm	1120mm	1030mm
2 layers 16mm	800mm	740mm	1090mm	1000mm

Table 41

MAXIMUM SPANS - WIND LOADS N4/C2 - M303 24mm CYCLONIC CEILING BATTEN DIRECT FIX				
BATTEN SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	680mm	620mm	1030mm	800mm
1 layer 13mm	690mm	630mm	1040mm	810mm
1 layer 16mm	700mm	640mm	1050mm	820mm
2 layers 13mm	720mm	660mm	1075mm	840mm
2 layers 16mm	730mm	670mm	1085mm	850mm

Table 42

MAXIMUM SPANS - WIND LOADS N5/C3 - M303 24mm CYCLONIC CEILING BATTEN DIRECT FIX				
BATTEN SPACING	450mm	600mm	450mm	600mm
PLASTERBOARD LINING	SINGLE SPAN		CONTINUOUS SPAN	
1 layer 10mm	600mm	520mm	750mm	630mm
1 layer 13mm	610mm	530mm	760mm	640mm
1 layer 16mm	620mm	540mm	770mm	650mm
2 layers 13mm	640mm	560mm	790mm	670mm
2 layers 16mm	650mm	570mm	800mm	680mm

Notes:

1. Span tables are based on the effective section properties as per AS/NZS 4600.
2. Strength and serviceability criteria compliant.
3. Serviceability deflection limit L/300.
4. Tables 29-42 for external/internal applications and relative to wind class as per AS 1170.1, 1170.2 and AS/NZS 4600.
5. Wind classification as per AS 4055.