

Steel Stud Systems



Studco Stud
Fits positively into track



External Infill Framing
Between concrete and steel structures



Service Holes

Bell-mouthed service holes at 500mm centres – do not require grommets for cabling. Knurled face for screw point location.



Boxed Studs

Studco .50, .55 and .75BMT steel studs can be easily boxed together providing extra strength at door openings or where greater loads are required.

Steel Stud Systems

The Studco steel stud framing system is engineered to provide designers and installers the solution to create framing systems that are not only durable and versatile but can also achieve the needs and design criteria in accordance with the BCA and appropriate Australian standards. The Studco steel stud framing system is manufactured in a range of various widths, lengths and material gauges from 0.50mmBMT to 1.5mm BMT. This range of stud and track profiles not only offer greater span and performance, but also are accompanied by a range of accessories including noggings, nogging track and bracket joining systems. The design tables in this section have been formulated to comply with the relevant Australian standards, accompanied by substantial laboratory and field testing. Construction of fire-rated or sound rated wall systems can be achieved by using the Studco steel framing system and accessories. Refer to the building board manufacturers for more detailed information.

Components

Stud and Track Sections

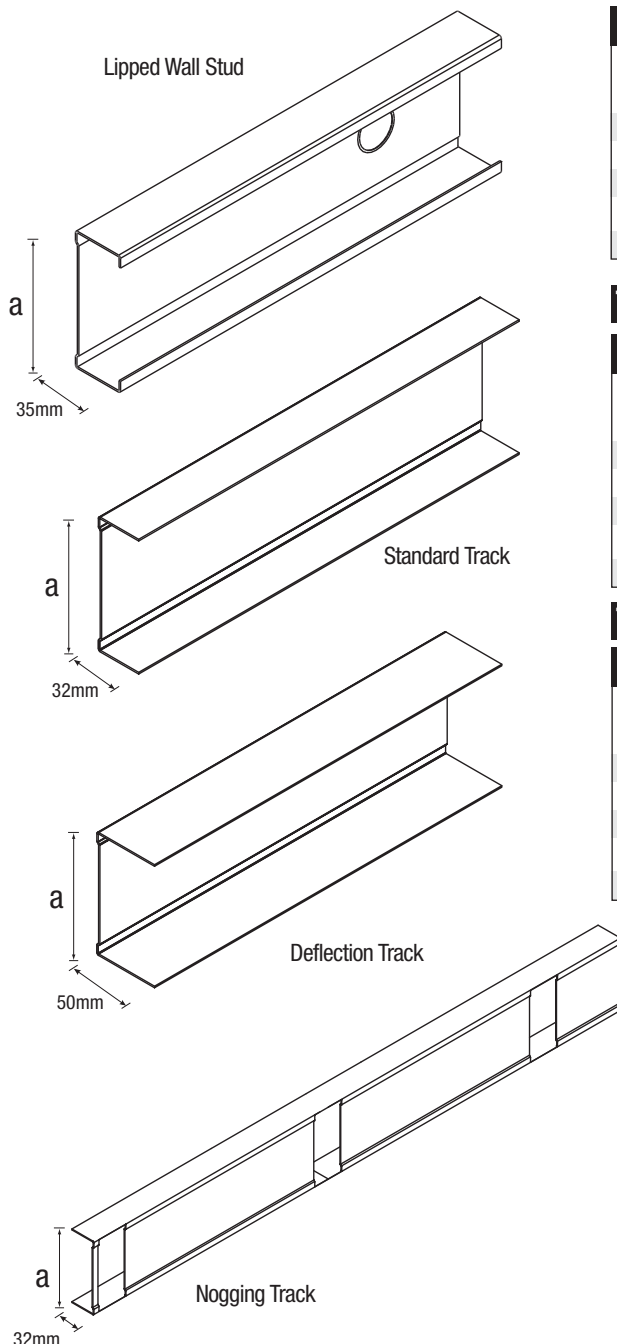


Table 44

LIPPED WALL STUDS - PART NUMBERS				
Section Width "a"	Base Metal Thickness - BMT			
	0.5mm	0.55mm	0.75mm	1.15mm
51mm	S5150	N/A	S5175	N/A
64mm	S6450	N/A	S6475	S64115
76mm	N/A	S7655	S7675	S76115
92mm	N/A	S9255	S9275	S92115
150mm	N/A	N/A	S1507	S15012

Table 45

STANDARD TRACK - PART NUMBERS						
Section Width "a"	Base Metal Thickness - BMT					
	0.5mm	0.5mm Hemmed	0.55mm	0.7 Hemmed	0.75mm	1.15mm
51mm	T5155	N/A	N/A	N/A	T5175	N/A
64mm	T6455	T6455H	N/A	T6475H	T6475	T64115
76mm	T7655	T7655H	N/A	T7675H	T7675	T76115
92mm	T9255	T9255H	N/A	T9275H	T9275	T92115
150mm	N/A	N/A	N/A	N/A	T1507	T15012

Table 46

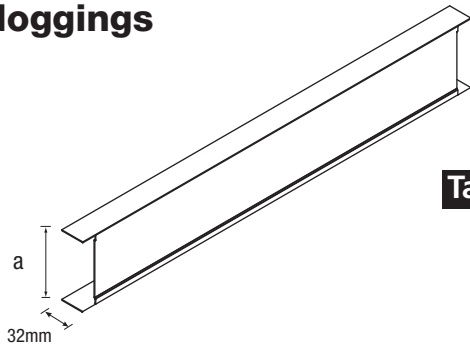
DEFLECTION HEAD TRACK - PART NUMBERS					
Section Width "a"	Base Metal Thickness - BMT				
	0.5mm	0.55mm	0.7mm hemmed	0.75mm	1.15mm
51mm	N/A	N/A	N/A	DT5175	N/A
64mm	N/A	DT645	DT6475H	DT6475	DT64115
76mm	N/A	DT765	DT7675H	DT7675	DT76115
92mm	N/A	DT925	DT9275H	DT9275	DT92115
150mm	N/A	N/A	N/A	DT1507	DT15012

Table 47

NOGGING TRACK - PART NUMBERS					
Section Width "a"	Nogging Track Centres	Base Metal Thickness - BMT			
		0.5mm	0.55mm	0.75mm	1.15mm
64mm	300mm	N/A	N/A	NT6475-30	N/A
64mm	450mm	N/A	N/A	NT6475-45	N/A
64mm	600mm	N/A	N/A	NT6475-60	N/A
76mm	300mm	N/A	N/A	NT7675-30	N/A
76mm	450mm	N/A	N/A	NT7675-45	N/A
76mm	600mm	N/A	N/A	NT7675-60	N/A
92mm	300mm	N/A	N/A	NT9275-30	N/A
92mm	450mm	N/A	N/A	NT9275-45	N/A
92mm	600mm	N/A	N/A	NT9275-60	N/A
150mm	300mm	N/A	N/A	NT1507-30	N/A
150mm	450mm	N/A	N/A	NT1507-45	N/A
150mm	600mm	N/A	N/A	NT1507-60	N/A

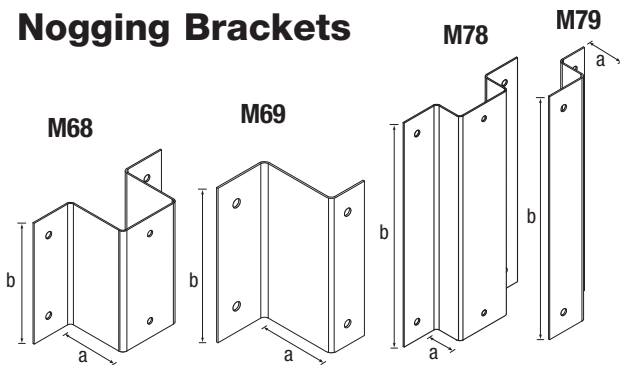
Steel Stud Systems – Components

Noggings


Table 48
NOGGINGS - PART NUMBERS

Section Width "a"	Nogging Track Centres	Base Metal Thickness - BMT			
		0.5mm	0.55mm	0.75mm	1.15mm
64mm	450mm	N/A	N/A	N6475-45	N/A
64mm	600mm	N/A	N/A	N6475-60	N/A
76mm	450mm	N/A	N/A	N7675-45	N/A
76mm	600mm	N/A	N/A	N7675-60	N/A
92mm	450mm	N/A	N/A	N9275-45	N/A
92mm	600mm	N/A	N/A	N9275-60	N/A
150mm	450mm	N/A	N/A	N1507-45	N/A
150mm	600mm	N/A	N/A	N1507-60	N/A

Nogging Brackets


Table 49
NOGGING BRACKETS - PART NUMBERS

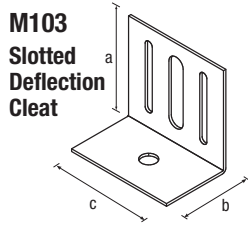
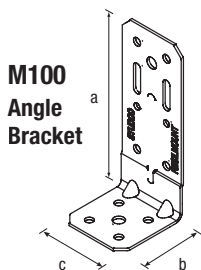
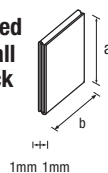
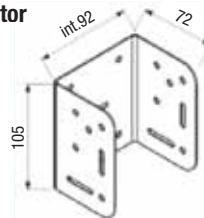
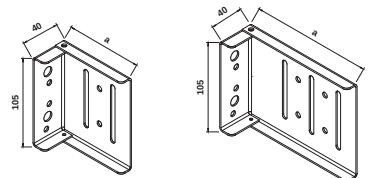
Part No	Section Height "a"	Section length "b"	BMT	Timber Nogging Thickness
M68	36mm	72mm	0.75	35mm
M69	36mm	72mm	0.75	35mm
M78	18mm	150mm	0.75	18mm
M79	18mm	150mm	0.75	18mm

Studco Ezy-Track


Table 50
EZY TRACK - PART NUMBERS

Section Width "a"	Track leg height "b"	Base Metal Thickness - BMT			
		0.5mm	0.55mm	0.75mm	1.15mm
51mm	42mm	N/A	N/A	FX51	N/A
64mm	45mm	N/A	N/A	FX64	N/A
76mm	39mm	N/A	N/A	FX76	N/A
92mm	41mm	N/A	N/A	FX92	N/A
150mm	42mm	N/A	N/A	FX150	N/A

Brackets


**M126
Staggered
Stud Wall
ClipTrack**

**M107
HEDA Lintel/Sill
Connector**

**M190
Bypass Framing Connector**

Table 51
BRACKETS - PART NUMBERS

Part No.	Section Width "a"	Section Width "b"	Section Width "c"	BMT
M100	100mm	45mm	40mm	1.5mm
M103*	75mm	50mm	80mm	3.0mm
M104	65mm	35mm	80mm	2.0mm
M545	75mm	75mm	55mm	1.5mm

* To be superseded by M104

Steel Stud Systems - Wall Studs

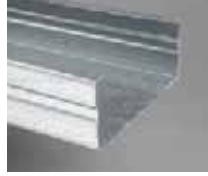
HEDAJamb



HEDAJamb 63
(92mm wide)



HEDAJamb 90
(92mm wide)



HEDAJamb 63
(150mm wide)

Table 52

STUDCO HEDA JAMB - PART NUMBERS		
Section Width "a"	Base Metal Thickness - BMT	
	1.15mm	1.55mm
76mm	HJ9276115	N/A
89mm	N/A	HJ9289155

Rapidtrack Slotted Deflection Track

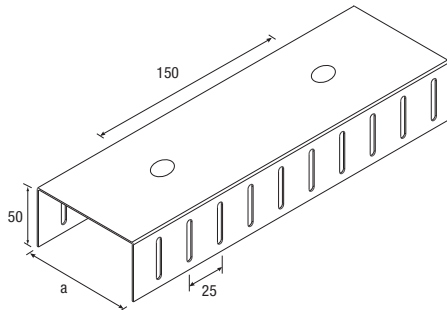


Table 53

RAPIDTRACK				
SECTION WIDTH "a"	Base Metal Thickness - BMT			
	0.5mm	0.55mm	0.75mm	1.15mm
51mm	N/A	N/A	N/A	N/A
64mm	N/A	N/A	DS6475	DS76115
76mm	N/A	N/A	DS7675	N/A
92mm	N/A	N/A	DS9275	DS92115
150mm	N/A	N/A	N/A	DS150115

Hole size is $\phi 14$ mm, suitable for M12 bolts or M10 masonry sleeve anchors.

Strongarm Wall Brace

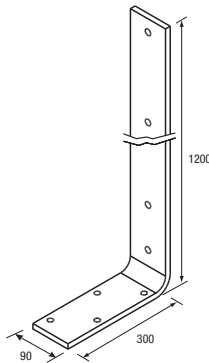


Table 54

PART No	STRONGARM	Section A Height	Section B Length	BMT
M110	StrongArm Wall Brace 1200mm	1200	300	12.0

Slimwall Brackets & Channel

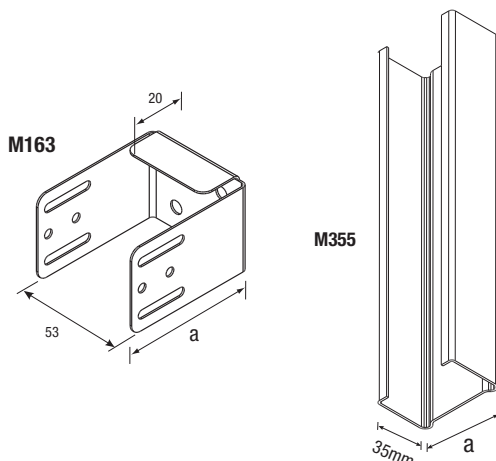


Table 55

PART No	SLIMWALL	Section A Height
M163-6	Slimwall Bracket 69-92mm Cavity	68mm
M163-8	Slimwall Bracket 85-108mm Cavity	84mm
M355	M355 Ceiling Channel	51mm

Steel Stud Systems - Studs

The Studco lipped wall studs are manufactured in various widths and gauges from 0.50BMT to 1.15BMT. Bell mouth service holes are punched at 500mm centres eliminating the need for cabling grommets. The knurled face along the stud flange provides a positive screw point location. Studs can be boxed or spliced to extend the overall length or to provide strengthening if required. Refer to *Table 47* for splice fixing details.

Spliced Studs

0.75 BMT - 150mm studs
1.15 BMT - 64, 76, 92, 150mm studs

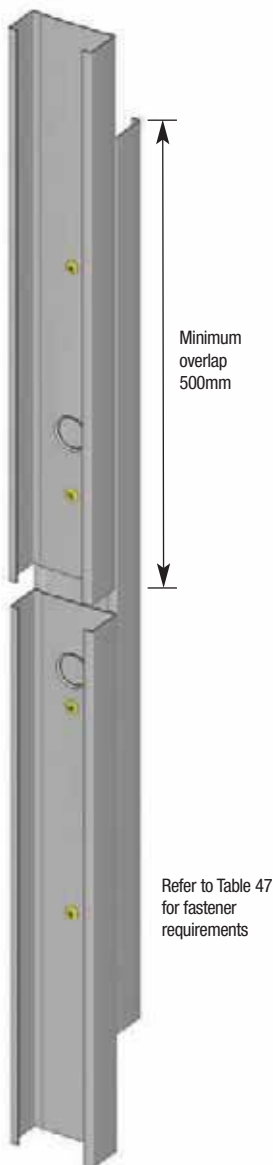


Fig. 1

Spliced Studs – Back to Back
Screw through at maximum 500mm centres.

Spliced Studs

0.50 BMT - 51, 64mm studs
0.55 BMT - 76, 92mm studs
0.75 BMT - 51, 64, 76, 92mm studs

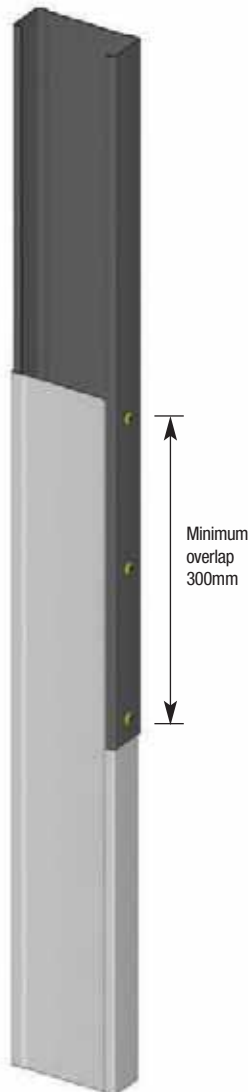


Fig. 2

Spliced Studs - Boxed
Refer to Table 47 for fixing requirements

Note: 1.Splicing of studs is not suitable for load bearing walls unless certified by an engineer.
2.Splices to be alternated top and bottom along wall length
3.Do not splice studs between 25% - 75% of wall height
4.Maximum stud spacing 600mm centres

Table 56

SPLICE STUD FIXING DETAIL			
Wall Height	Splice Position In Wall	No. of Fasteners for both sides of studs at splice joint	
		0.50 / 0.55 / 0.75BMT	1.15BMT
0-6000mm	0 -10%	2	3
	10% - 25%	3	5

Boxed Studs

0.50 & 0.55 BMT - all stud sizes



Fig. 3

Boxed Studs - Screw Fixing
only required if studs are unlined.

Back to Back Studs

0.75 & 1.15BMT - all stud sizes

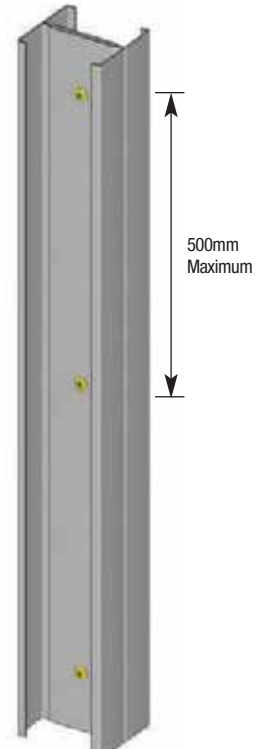


Fig. 4

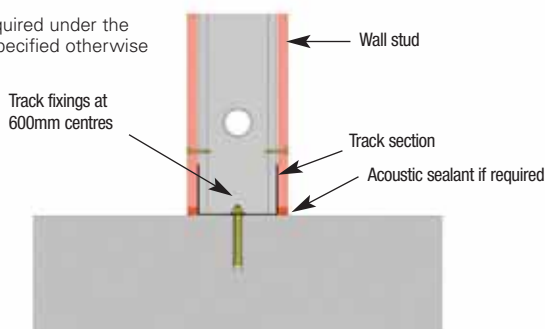
Back to Back – Fixing for 1.15
stud range in lieu of Boxing stud.
Refer to Table 56 for fixing requirements

Steel Stud Systems - Tracks

The Studco Track sections provide a friction fit for the lipped wall studs. The friction fit holds the studs in position until the lining boards are fixed; this friction fit also accommodates a slip joint to allow for any movement in the primary structure. To allow for this movement to occur it is not recommended that the lining board is fixed to the track sections unless specifically stated. Studco Track Sections are manufactured in two different profiles: a standard track with a nominal leg height of 32mm and the deflection head track with a nominal leg height of 50mm. The standard track is also available with a rolled hemmed edge. This safety hem along the entire length of the track section reduces the exposure to sharp edges whilst also enhancing the rigidity of the profile.

Fig. 1 Bottom Track Fixing

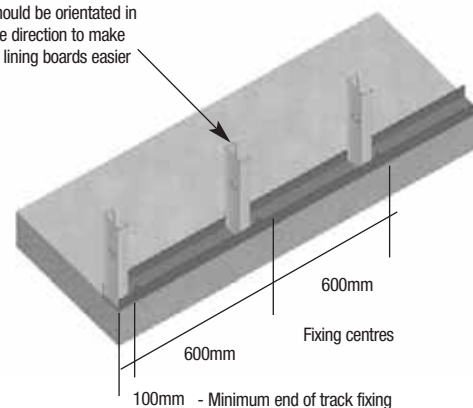
Note:
DPC is not required under the track unless specified otherwise



Note:
Use 2 fixings at 600mm centres for the 150mm track section, approximately 20mm in from either side of the track.

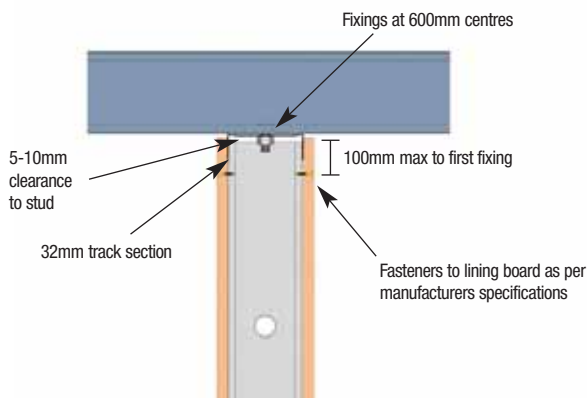
Fig. 2 Fixing Centres

Studs should be orientated in the same direction to make fitting of lining boards easier



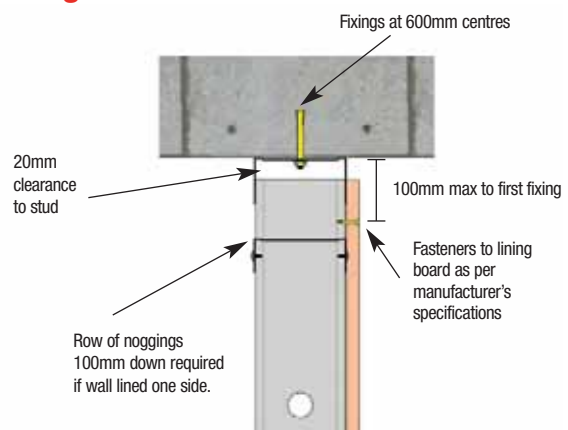
Note:
Where tracks are fastened to concrete minimum edge distances for all fixings must be maintained.

Fig. 3 Friction Fit



Note:
Do not fix cornice to walls rigidly where friction joints are installed.

Fig. 4 Deflection Head



Note:
Do not rigidly fix cornice to walls where deflection head is used.

Steel Stud Systems - Noggings

Studco noggings and nogging tracks are manufactured in a range of sizes to suit standard wall stud centres. Nogging track to suit custom centres and back to back studs is available. The use of noggings is to provide support and also to prevent twisting of the studs during the installation of the lining boards. Noggings also provide extra support to the wall construction, and in some instances a more cost effective design can be achieved by using noggings. Studco manufactures two types of noggings, individual noggings or nogging track. Noggings are supplied as pre-cut individual nogging pieces to save cutting on site and can also be installed after the studs and tracks have been fitted. Nogging track is a continuous track that can be installed in stud framing in one length and requires only two screw fixings per stud connection. Timber noggings may be used, providing they are fixed as per diagram Fig. 3. Treated timber must not be used. The minimum number of noggings for different wall configurations can be established from Table 49. This is applicable for internal walls subjected to 0.25kPa. Walls connected to the underside of a concrete slab must be installed with deflection head track and an additional row of noggings 100mm down, if lined one side only.

Fig. 1 Nogging

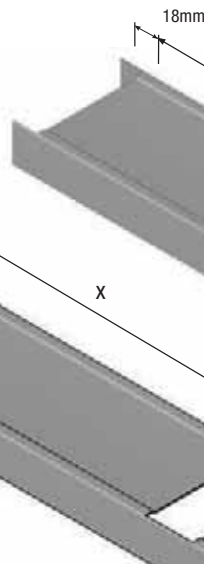


Fig. 2 Nogging Track

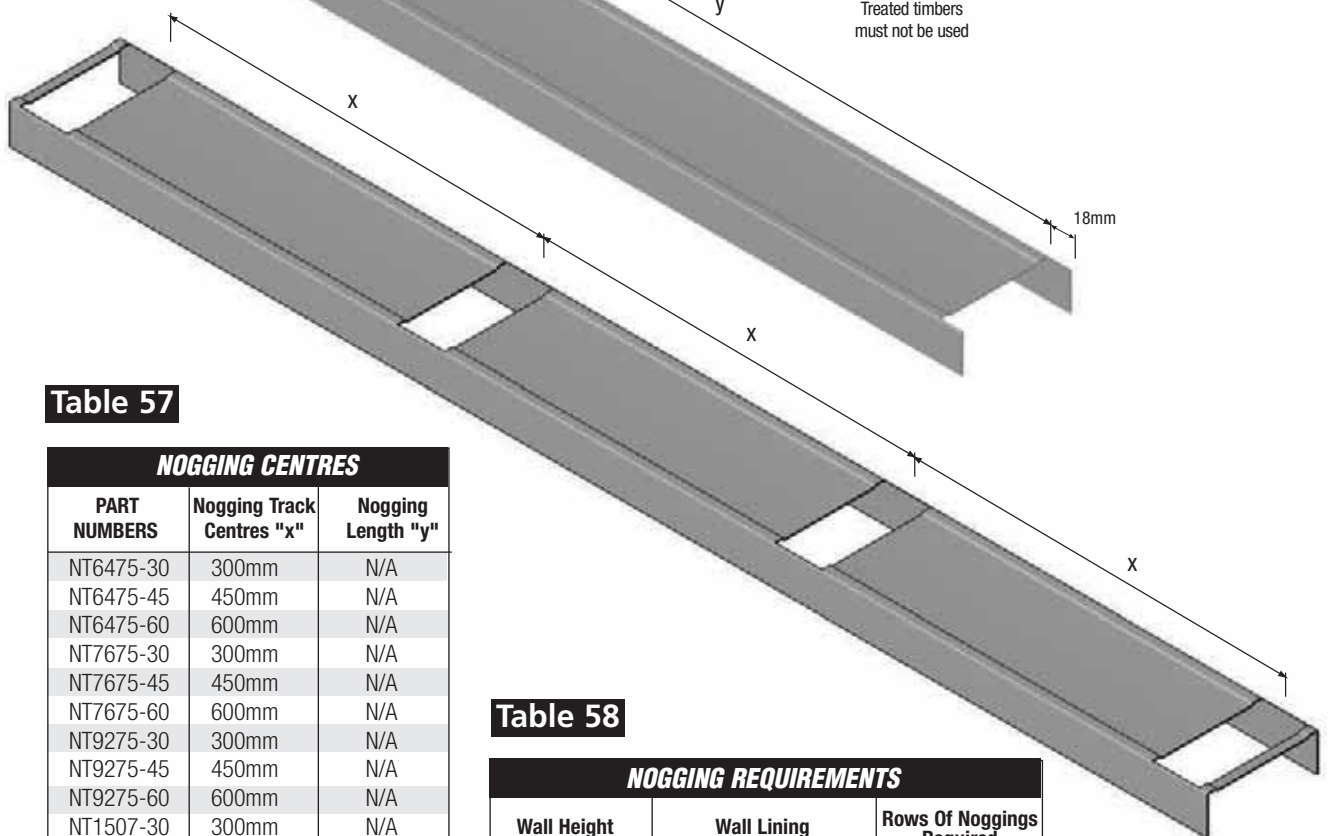


Fig. 3 Timber Nogging

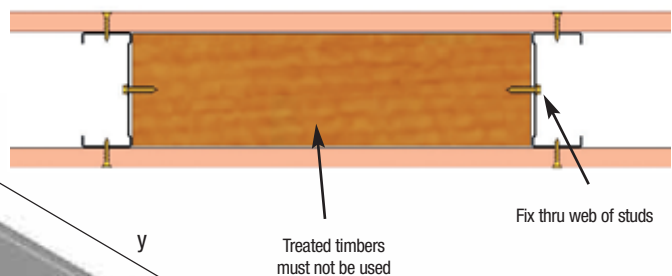


Table 57

NOGGING CENTRES		
PART NUMBERS	Nogging Track Centres "x"	Nogging Length "y"
NT6475-30	300mm	N/A
NT6475-45	450mm	N/A
NT6475-60	600mm	N/A
NT7675-30	300mm	N/A
NT7675-45	450mm	N/A
NT7675-60	600mm	N/A
NT9275-30	300mm	N/A
NT9275-45	450mm	N/A
NT9275-60	600mm	N/A
NT1507-30	300mm	N/A
NT1507-45	450mm	N/A
NT1507-60	600mm	N/A
N6475-45	N/A	412mm
N6475-60	N/A	562mm
N7675-45	N/A	412mm
N7675-60	N/A	562mm
N9275-45	N/A	412mm
N9275-60	N/A	562mm
N1507-45	N/A	412mm
N1507-60	N/A	562mm

Table 58

NOGGING REQUIREMENTS		
Wall Height	Wall Lining	Rows Of Noggings Required
0 - 4.2m	Wall Lined Both Sides	0
4.2m - 8.4m		1
0 - 3.0m	Wall Lined One Side	1
3.0m - 6.0m		2
6.0m - 8.0m		3

Note: Walls connected to the underside of a concrete slab must be installed with deflection head track and additional row of noggings 100mm down if unlined or lined one side only. If slotted deflection head track is used, additional row of noggings 100mm down not required.

Installation Guide - Wall to Ceiling Intersections

Fig. 1 Top Track to Bridging Support Detail

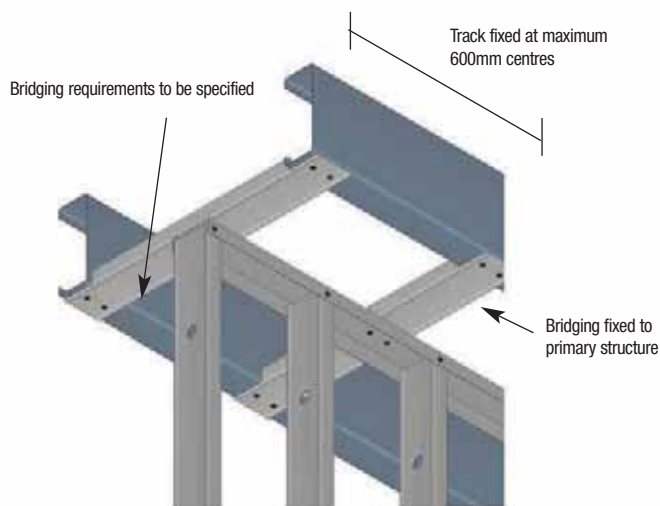


Fig. 2 Concealed Ceiling with Wall Parallel to Furring Channel Detail

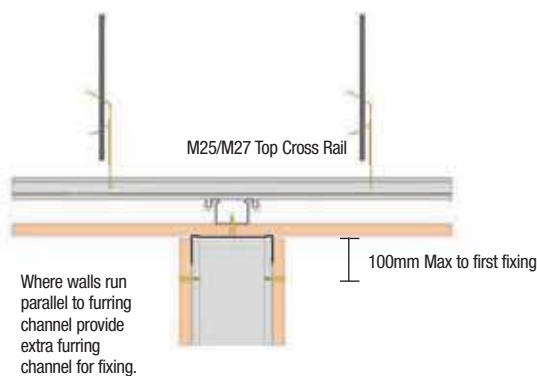


Fig. 3 Concealed Ceiling with Wall Right Angles Connection Detail

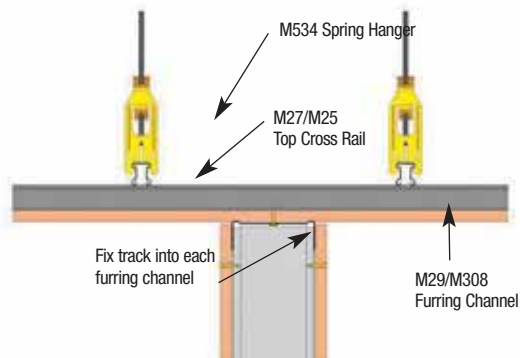


Fig. 4 Exposed T-Bar Ceiling Connection Detail

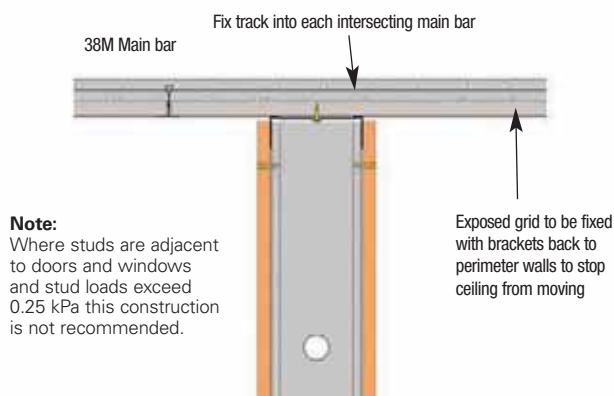


Fig. 5 Decorative Stopping Section with Wall Track Detail

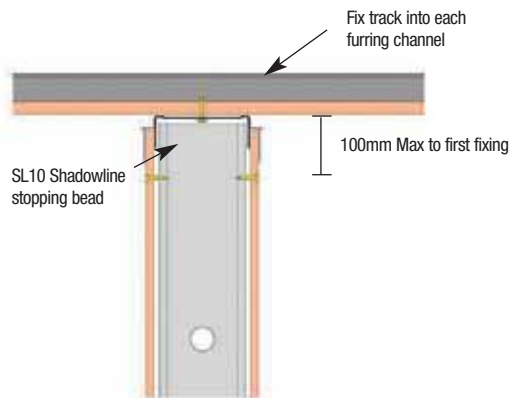
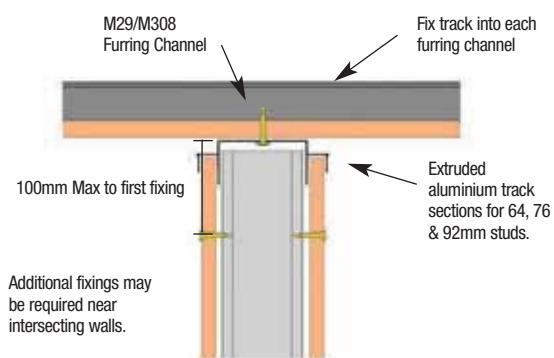


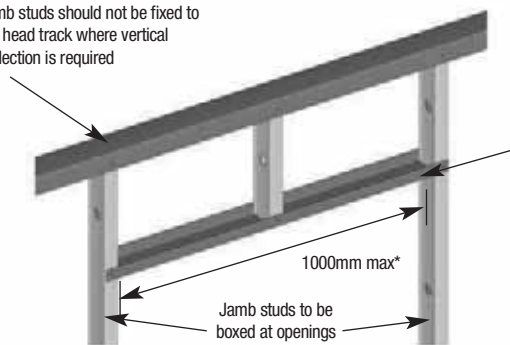
Fig. 6 Decorative Stopping Header Track Detail



Installation Guide - Internal Stud Walls

Fig. 1 Door Opening

Jamb studs should not be fixed to the head track where vertical deflection is required

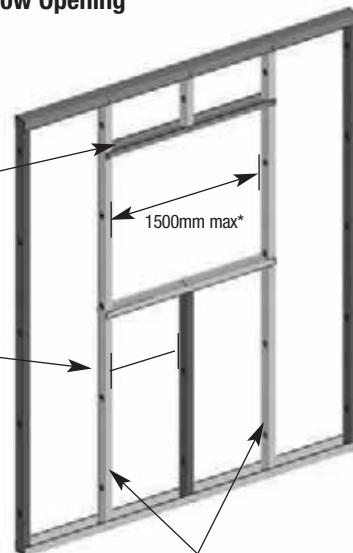


* Door openings over 1000mm and external openings must be checked prior to commencement of work.

Fig. 2 Window Opening

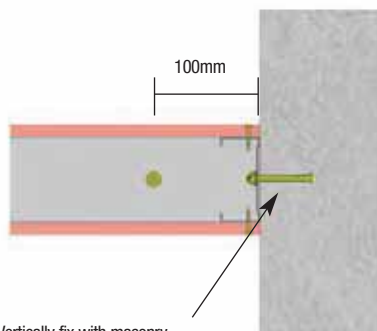
Door/Window header from track section fixed to jamb studs

Stud centres should match the standard wall stud spacing



* Jamb studs to be boxed at openings, window openings over 1500mm and external openings must be checked prior to commencement of work.

Fig. 3 Wall End Intersection to Concrete

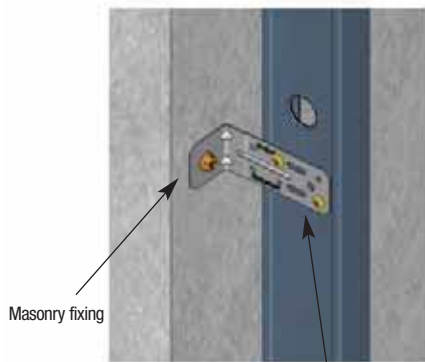


Vertically fix with masonry fixings max 500mm centres

INTERNAL WALLS ONLY
DESIGN NOT SUITABLE
FOR EXTERIOR WALLS

Fig. 4 Angle Bracket Connection

* Resilient mount can also be used - see page 30.



Minimum 2 tek screws per connection

* Bracket locations should be checked prior to commencement of work

Fig. 5 Wall End

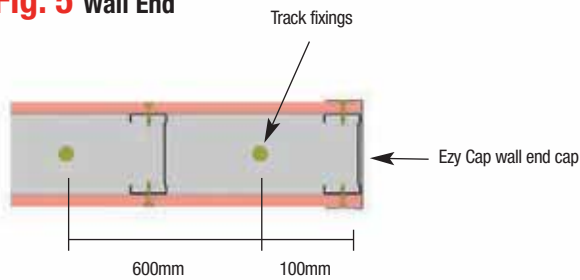
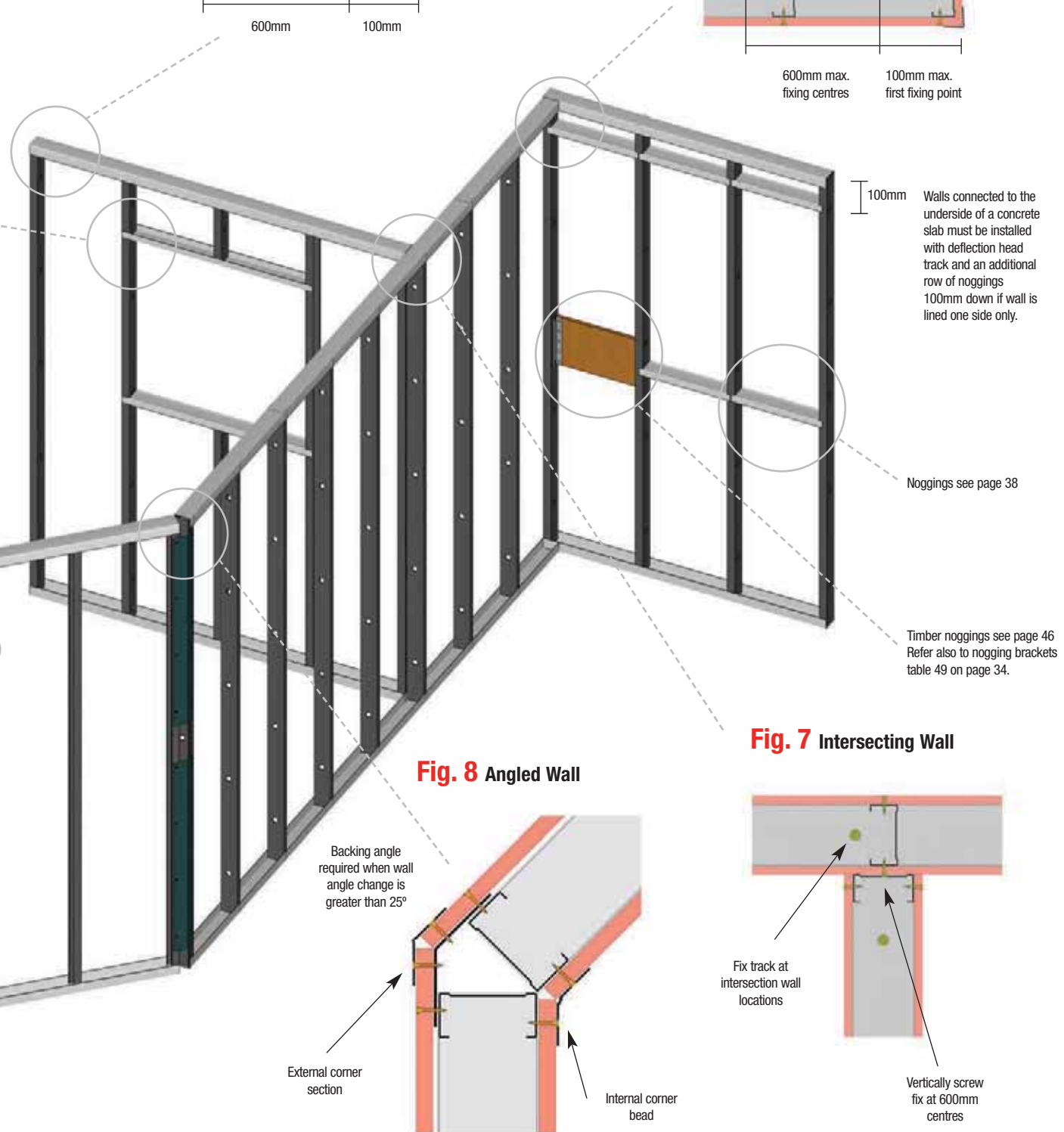
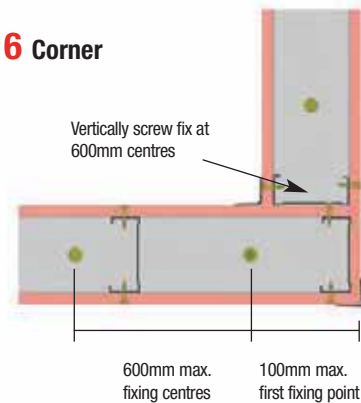


Fig. 6 Corner



Installation Guide - Staggered Stud Walls

Staggered Stud Systems provide resistance to sound transmission and acoustic impact. Studs are held in place by using the M126 Staggered Stud Clip or M40 Wall Track as shown in Fig. 1. Refer to Table 59 for maximum wall heights.

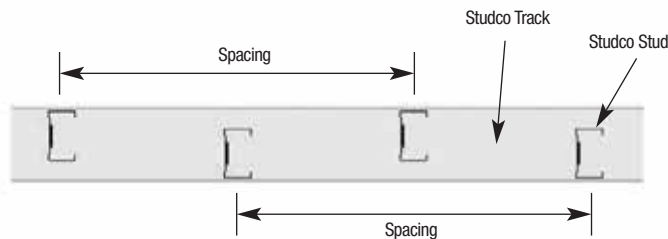


Fig. 1 Typical Staggered Stud Wall Application

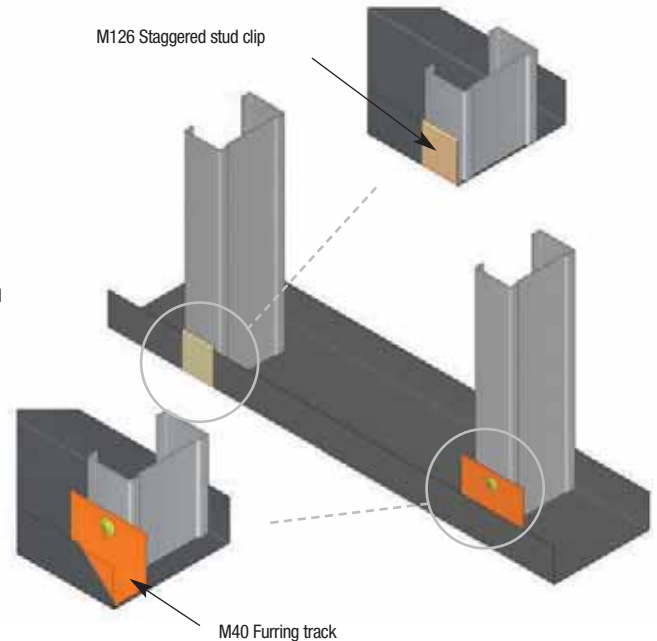


Table 59

MAXIMUM STAGGERED STUD WALL HEIGHTS - SPAN/240									
PLASTER THICKNESS (mm)		10mm PLASTERBOARD			13mm PLASTERBOARD			16mm PLASTERBOARD	
STUD SPACING (MM)		300mm	450mm	600mm	300mm	450mm	600mm	300mm	450mm 600mm
PART NO.	STUD SIZE	MAX WALL HEIGHT (mm)							
S51050	51mm x 0.50BMT	2880	2510	2350	2910	2540	2340	2900	2540 2340
S64050	64mm x 0.50BMT	2930	2600	2390	3000	2660	2380	3080	2710 2380
S64075	64mm x 0.75BMT	3620	3190	2850	3720	3290	2850	3800	3370 2850
S64115	64mm x 1.15BMT	4440	3880	3530	4490	3950	3520	4520	3980 3520
S76055	76mm x 0.55BMT	3170	2810	2610	3240	2850	2620	3290	2930 2610
S76075	76mm x 0.75BMT	3750	3330	3020	3830	3390	3020	3910	3470 3020
S76115	76mm x 1.15BMT	4550	4020	3620	4670	4080	3610	4770	4180 3620
S92055	92mm x 0.55BMT	3380	2980	2750	3440	3030	2740	3500	3050 2730
S92075	92mm x 0.75BMT	3920	3490	3180	3990	3540	3210	4050	3590 3200
S92115	92mm x 1.15BMT	4660	4110	3760	4780	4180	3760	4860	4250 3760
S15007	150mm x 0.75BMT	4440	3990	3690	4480	4010	3670	4520	4050 3670
S15012	150mm x 1.15BMT	5140	4560	4160	5180	4620	4160	5230	4650 4150

Notes:

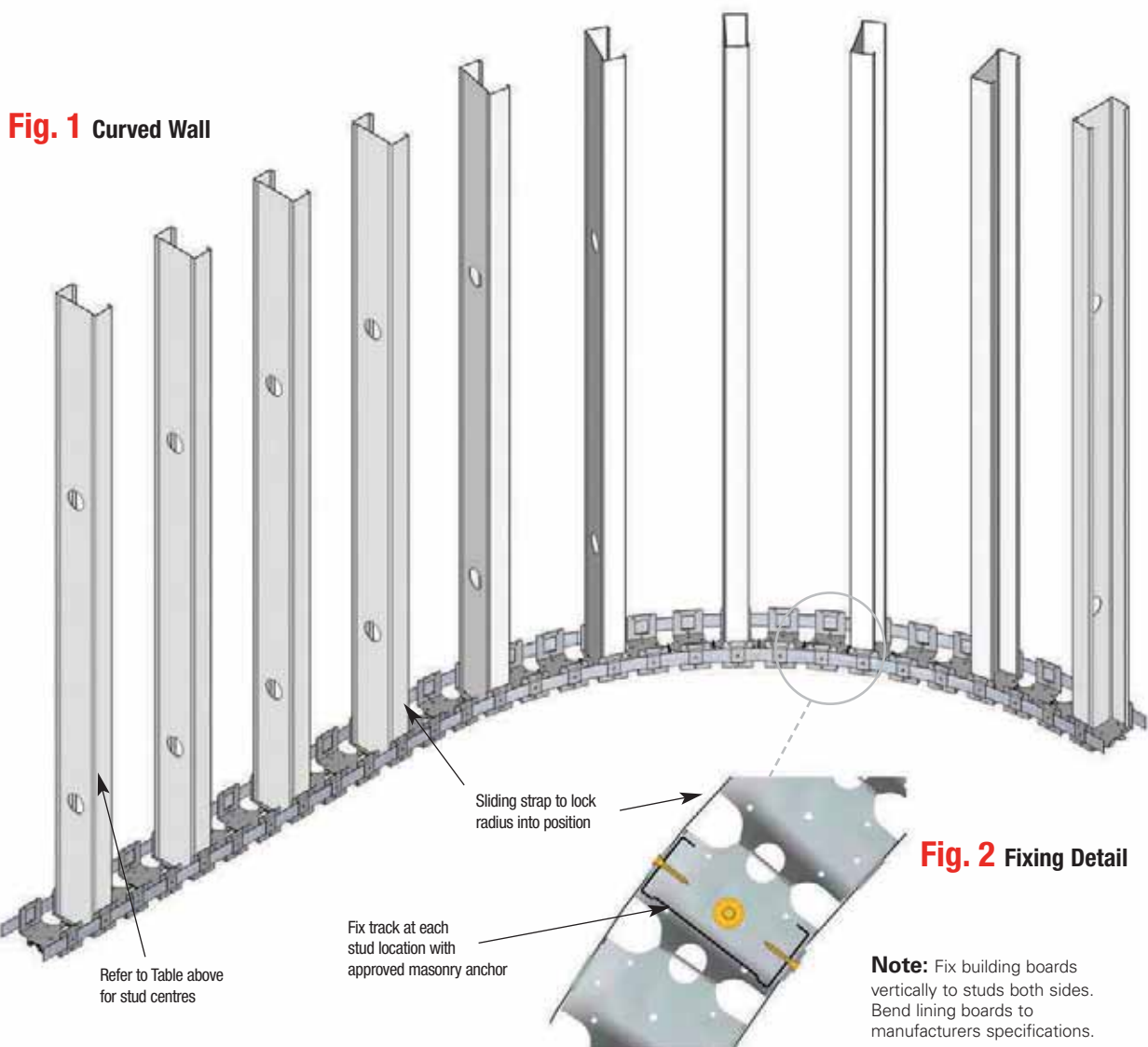
1. Tabulated heights can not be used for axial loads but include self weight and lateral pressures.
2. Shelf loadings are not included in the tabulated heights.
3. This table is for internal applications only.

Installation Guide - Curved Walls

Curved Walls can be easily constructed by using Studco Ezytrack. Ezytrack can be curved to suit the desired radius and screwed through the side strap to lock the radius into position. Studs are then placed into the Ezytrack and screwed both sides. The Ezytrack is fixed to the primary structure at each Stud location, top and bottom. The use of Ezytrack in bulkhead construction is a cost effective alternative as the Ezytrack can be preformed to your radius then screw locked and installed. For a guide on Stud centres for curved walls, refer to *Table 60* below.

Table 60

PLASTERBOARD THICKNESS	STUDS CENTRES - CURVED WALLS						
	WALL RADIUS						
	800mm-1000mm	1000mm-1500mm	1500mm-2000mm	2000mm-2500mm	2500mm-3000mm	3000mm-4000mm	over 4000mm
	MAXIMUM WALL STUD CENTRES						
6.5mm	150mm	200mm	250mm	300mm	350mm	450mm	550mm
10mm	150mm	200mm	250mm	300mm	350mm	450mm	550mm
13mm	--	150mm	200mm	250mm	300mm	400mm	500mm
16mm	--	--	--	150mm	200mm	250mm	350mm

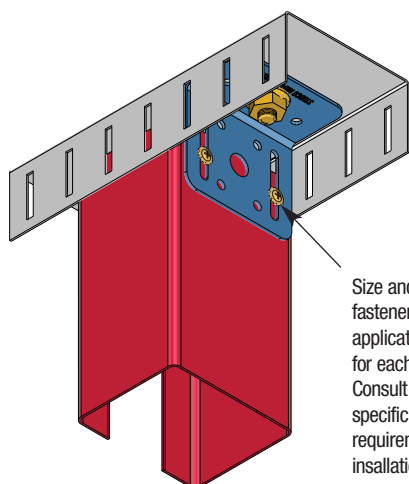


Installation Guide - HEDA Tough Wall System

The HEDA System from Studco offers an fast and easy way of creating openings in walls in both internal and external applications. Traditionally, wall openings have required two or three studs at each side of the jamb and a series of studs and track to act as a lintel. Whilst this method remains highly popular, the new HEDA System from Studco uses fewer sections and fewer connections, thereby greatly decreasing construction time and simplifying the construction process. The HEDA System consists of only two items. Firstly, there is one new profile, known as the HEDAJamb, which is 92mm wide and 75mm deep, and suits the standard 92mm steel stud system from Studco. Made from galvanised steel, the HEDAJamb is available in 1.2mm and 1.6mm thicknesses, making this section extremely versatile over a vast range of opening sizes. The HEDAJamb section can be used for both the opening jambs (vertical members) and the lintels and sills (horizontal members) and it eliminates the need for using multiple studs and stud/track combinations.

Secondly, to connect the HEDAJamb to adjoining members, a new bracket is used, known as the HEDAConnector. This versatile bracket is suitable for all connections required around the openings, eliminating the need for ordering different brackets for different connections.

The HEDA System has been fully engineered to meet BCA requirements and Australian Standards, ensuring you of code compliance whenever you use Studco's new HEDA System. The HEDA System is suitable for most opening applications and by discussing your needs with a Studco representative, you can be sure that even your most demanding opening specifications can be accommodated.



Size and type of fasteners may vary from application to application for each connection. Consult engineer for specific fastener requirements prior to installation.

Fig. 1 Jamb Stud To Slotted Deflection Track Connection

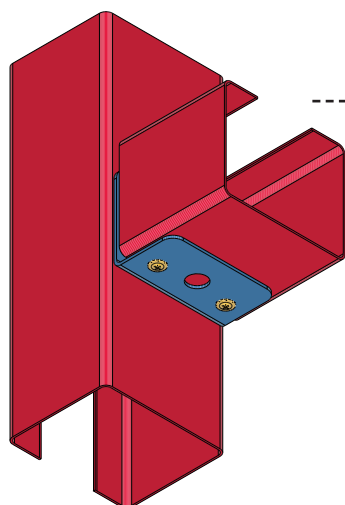
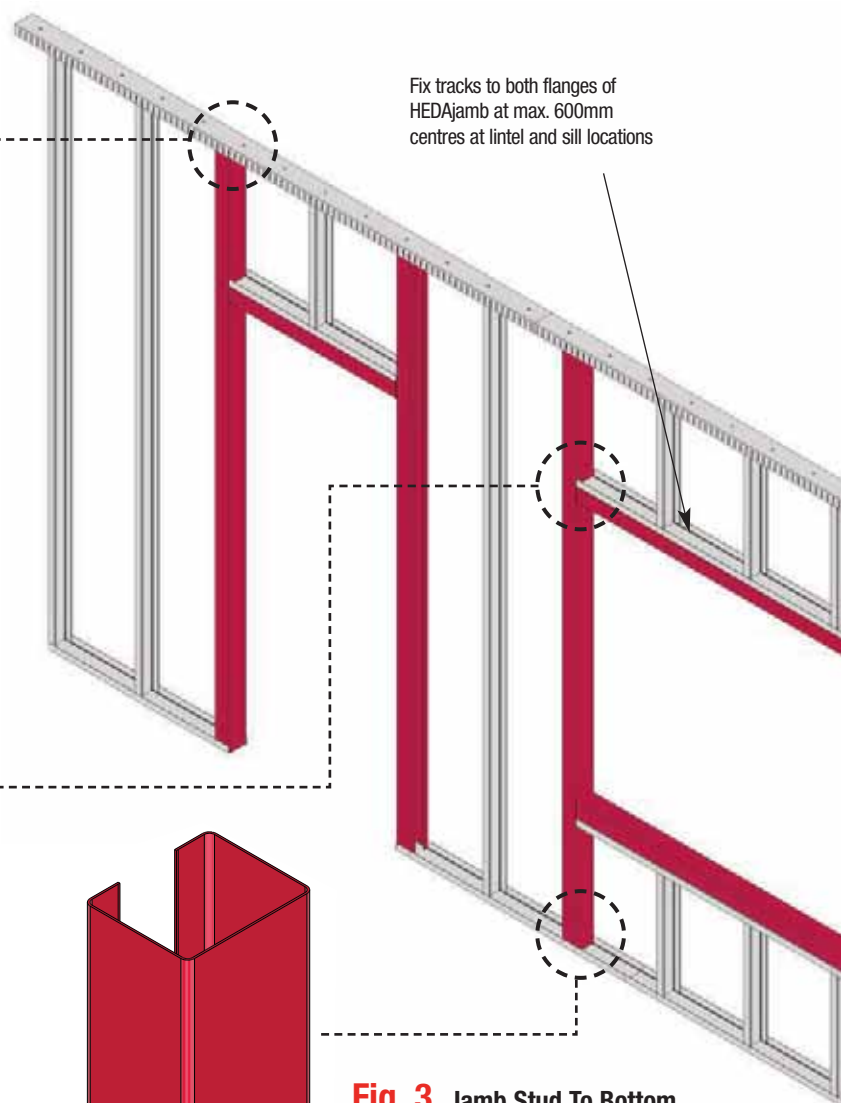


Fig. 2 Jamb Stud To Lintel/Sill Connection



Fix tracks to both flanges of HEDAJamb at max. 600mm centres at lintel and sill locations

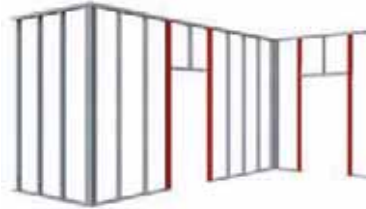
Fig. 3 Jamb Stud To Bottom Track Connection

Use HEDAConnector (Studco M104) for connection of HEDAJamb sections. Observe fastener requirements at all times.

Studco HEDAJamb is suitable for use in...



Openings in external walls



Openings in internal walls



Construction of extreme walls

Fix studs through slots to allow for building movement (deflection).

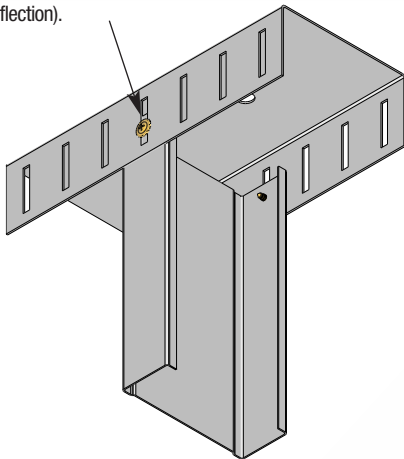
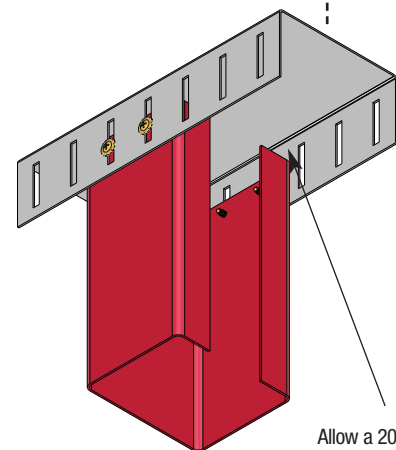


Fig. 4 Wall Stud To Slotted Deflection Track Connection
(Using std stud as wall stud)

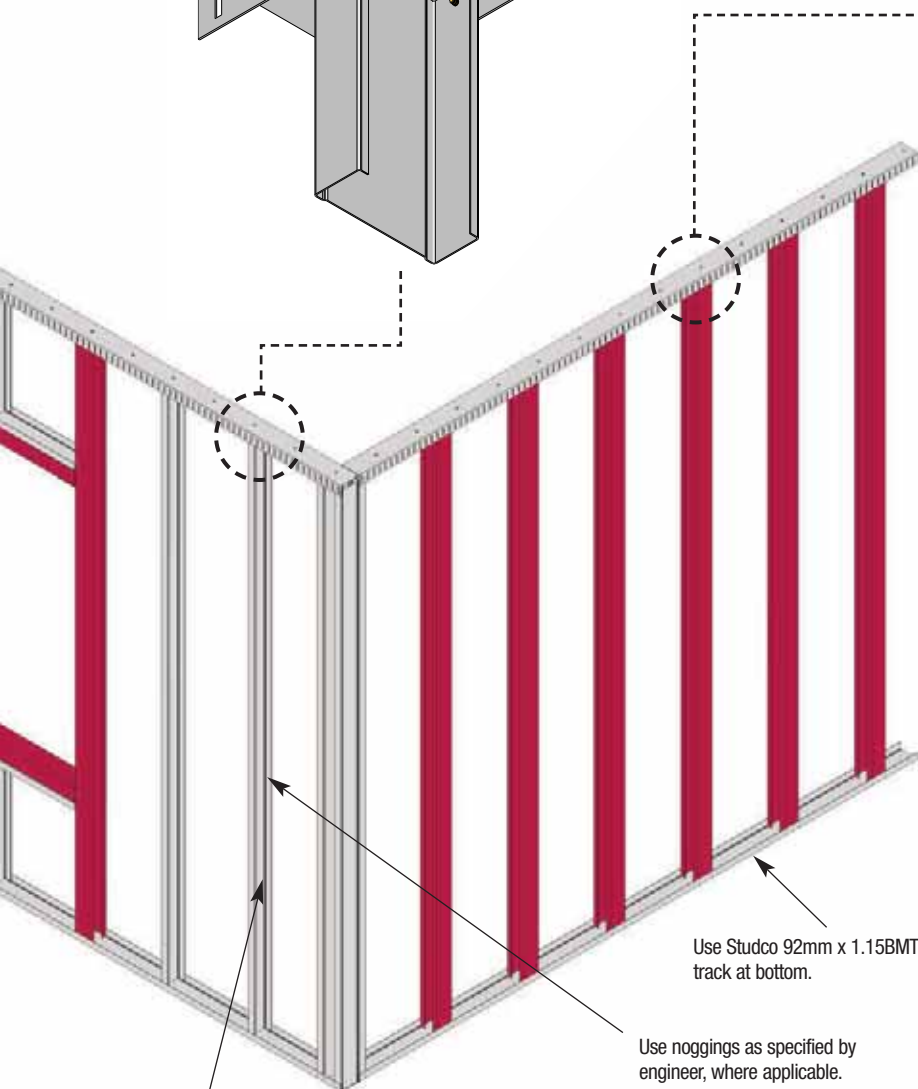
* HEDAJamb sections shown in red for illustrative purposes only.

Always ensure tightness of screw is sufficient to allow for deflection if needed.



Allow a 20mm minimum gap between wall studs or jamb studs on top track.

Fig. 5 Wall Stud To Slotted Deflection Track Connection
(Using HEDAJamb as wall stud)



Use Studco 92mm x 1.15BMT steel studs for intermediate wall studs. Consult engineer for spans and spacing.

Use Studco 92mm x 1.15BMT track at bottom.

Use noggings as specified by engineer, where applicable.

CONSULT STUDCO FOR WALL DESIGNS & SPECIFICATIONS

Installation Guide - Electrical & Plumbing Services

Plumbing pipes such as copper or brass must be isolated from direct contact with steel stud framing. Plastic grommets or lagging should be used to stop water hammer of pipework. Alternatively plumbing pipes can be fixed to flanges of studs where you have a suitable cavity with appropriate saddle clamps.

Electrical wires simply run through pre-punched service holes. Wires must be isolated safely from the steel structure. When drilling extra holes, refer to *Fig. 3* for cutout guidelines. Drilled holes should not exceed 50mm diameter.

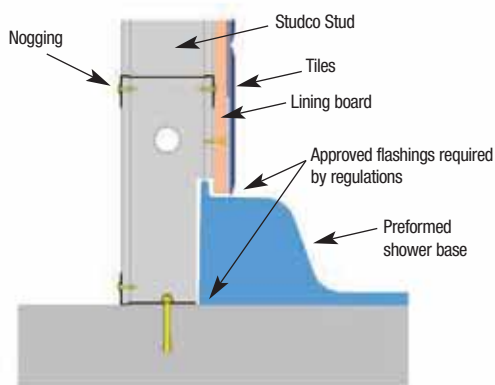


Fig. 1 Showerbase Installation Detail

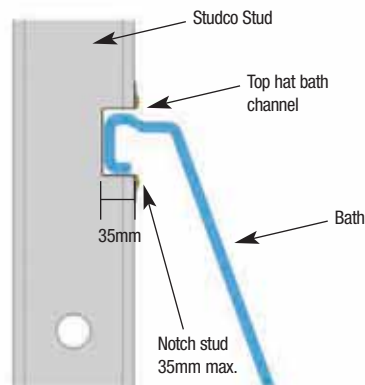


Fig. 2 Bath Notching Detail

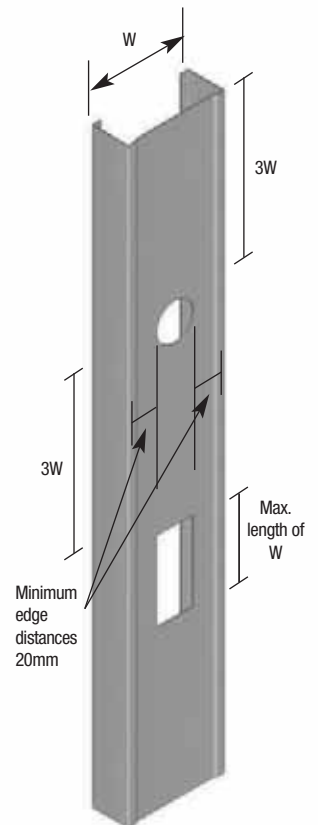


Fig. 3 Stud Cut-Out Guidelines

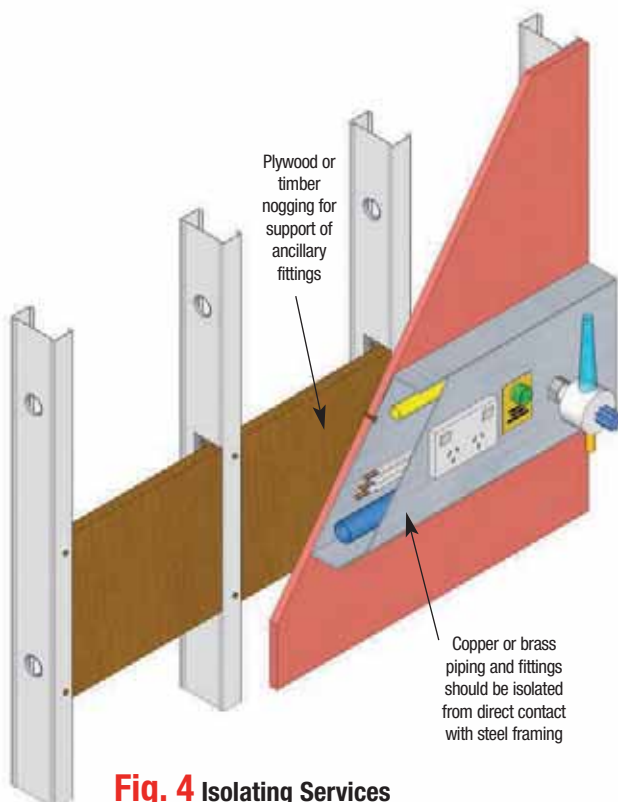


Fig. 4 Isolating Services

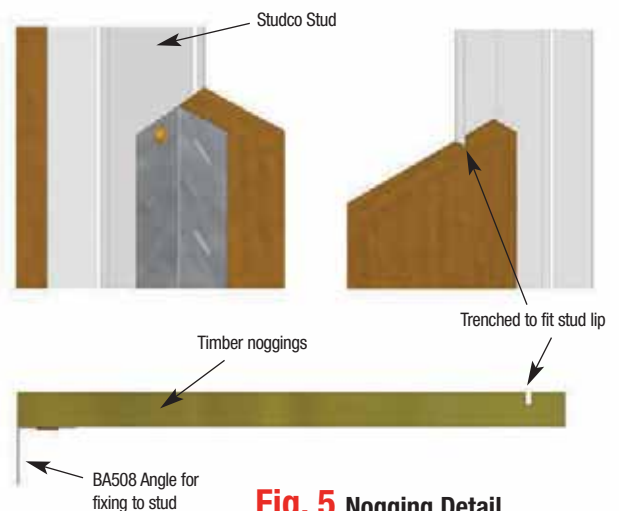


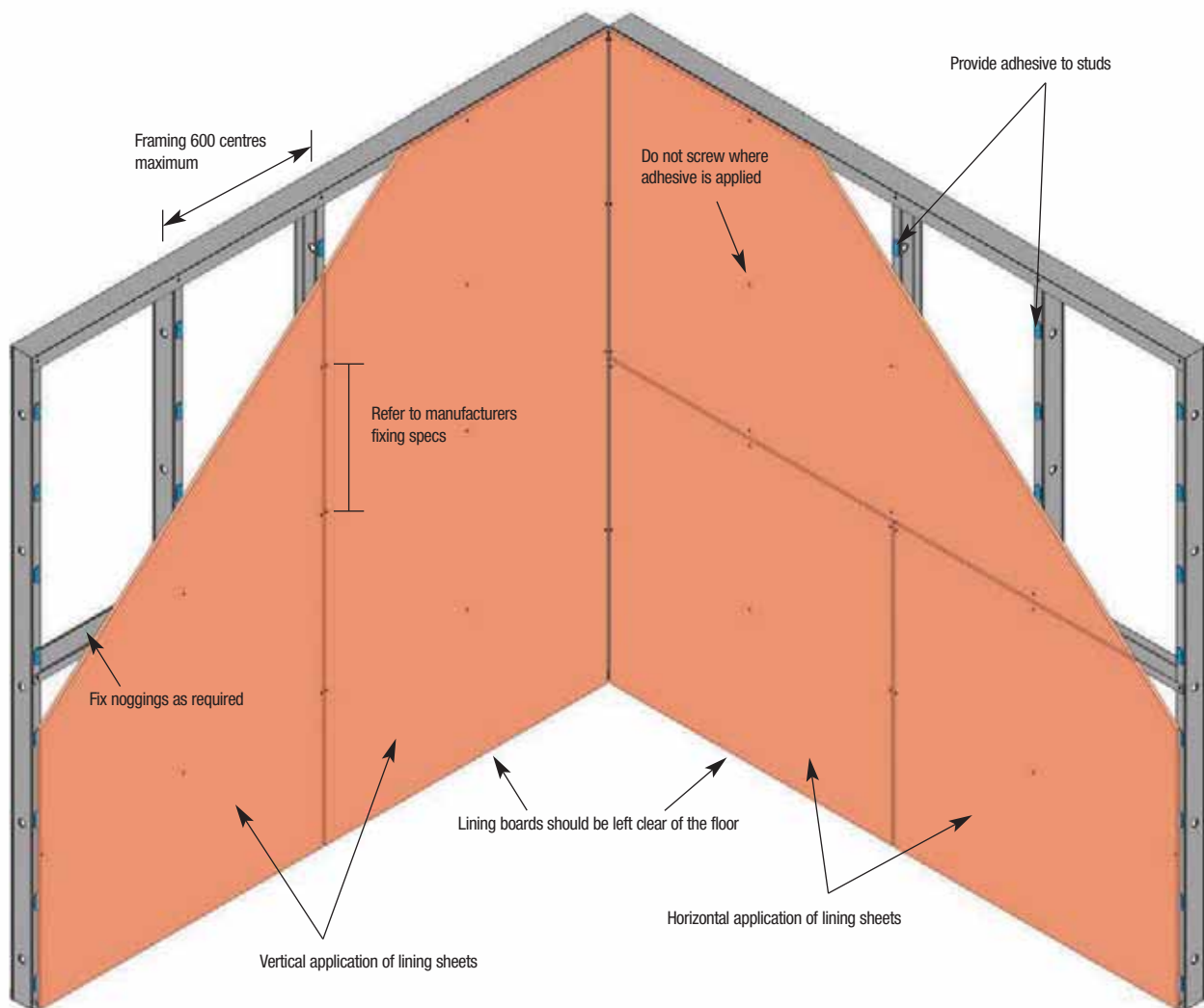
Fig. 5 Nogging Detail

Nogging brackets can also be used for this application - refer to table 49 on page 34

Installation Guide - Lining Boards

Plasterboard linings can be fixed vertically or horizontally with joints staggered alternately either side of the wall. Stud centres should not exceed 600mm centres. Refer to building board and fastener manufacturers specifications for fixing details.

Fig. 1 Lining Boards



Note:

For expansion joints, refer to building board manufacturers recommendations. Also see page 16.

Installation Guide - Chase Walls

Chase walls are required where services have to be accommodated or a discontinuous structure is needed for acoustic purposes. Chase walls are constructed as two separate walls using steel stud and track sections and cross braced at regular intervals with steel stud or track section (see Fig. 1). Where a chase wall is required for acoustic purposes the M24R resilient joiner bracket may be used as bracing. Consult Studco Technical Services for project requirements. Noggings are required based on a chase wall being classed as a wall lined one side. The maximum wall heights can be determined from Table 61.

Fig. 1 Typical Chase Wall Application

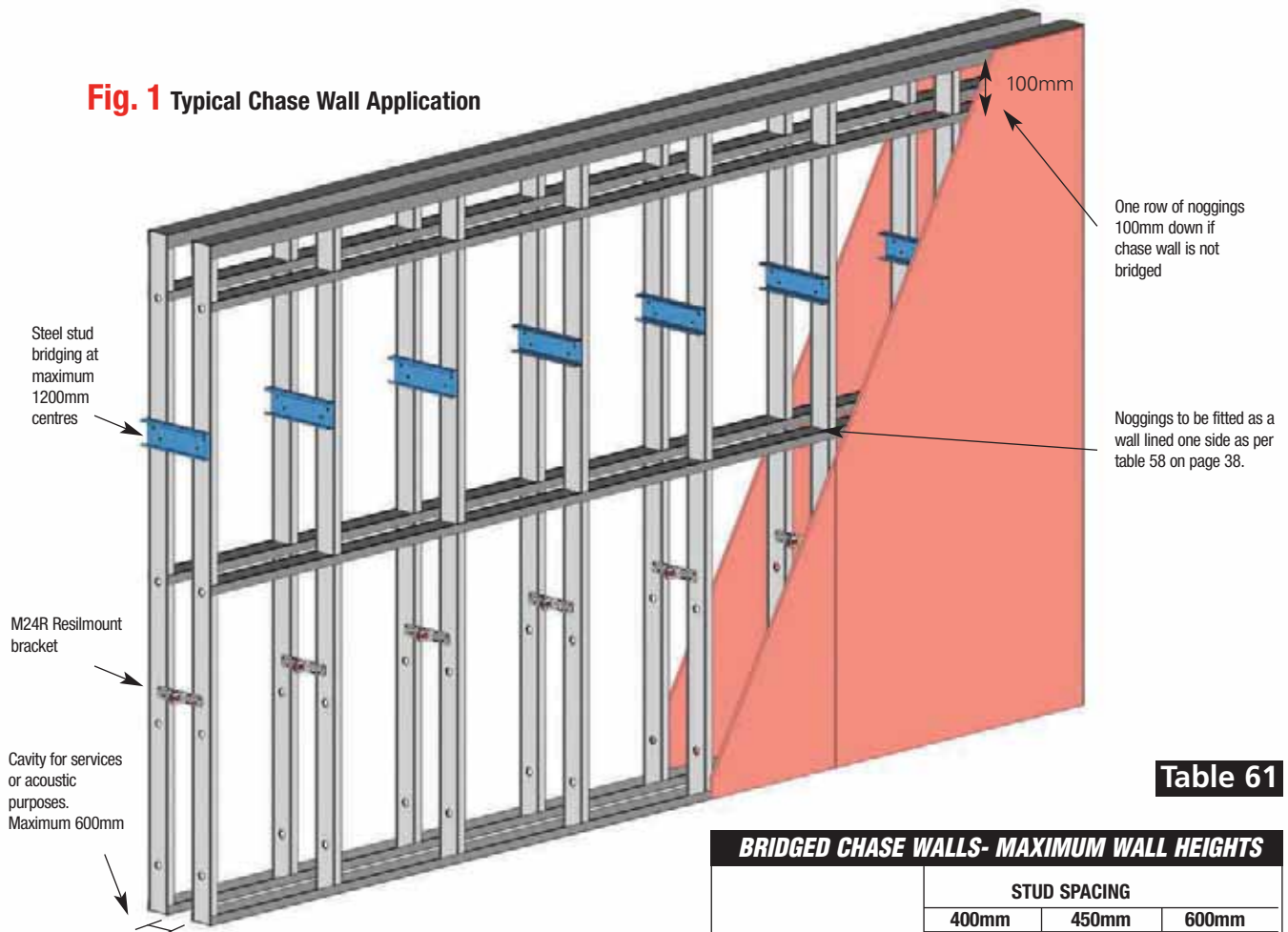


Table 61

BRIDGED CHASE WALLS- MAXIMUM WALL HEIGHTS

STUD SIZE	STUD SPACING		
	400mm	450mm	600mm
MAXIMUM WALL HEIGHTS - L/360			
64mm x 0.55BMT	3715mm	3503mm	3033mm
64mm x 0.75BMT	5077mm	4787mm	4145mm
76mm x 0.55BMT	4460mm	4205mm	3642mm
76mm x 0.75BMT	5659mm	5336mm	4621mm
92mm x 0.55BMT	4987mm	4702mm	4072mm
92mm x 0.75BMT	6324mm	5962mm	5163mm

Notes:
1. Noggings to be equally spaced over wall height
2. Deflection limit limited to L/360 or L/240 at 0.25kPa in accordance with the BCA spec C1.8
3. Unbridged walls must be installed with deflection track and an additional row of noggings 100mm down from top of wall.

Fig. 2 Max distance between walls with Resilmount brace

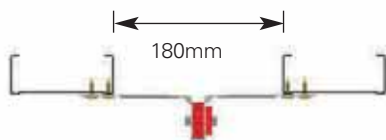


Fig. 3 Max distance between walls with Resilmount brace

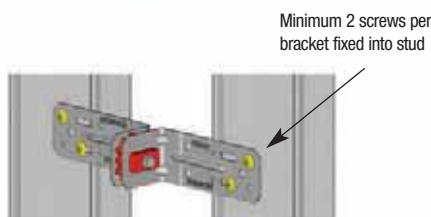


Fig. 4 Larger chase wall cavities use bridging extension.

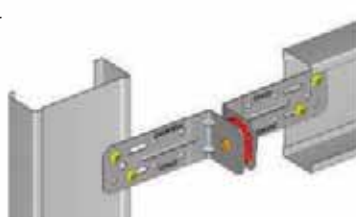
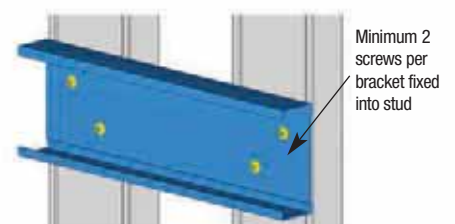


Fig. 5 Steel stud bridging



Installation Guide - Stud Ceilings

When constructing ceilings, steel studs acting as joists can be used where it is impractical to use a concealed suspended ceiling. Applications include many areas, such as apartments, corridors and bathrooms etc. Where service hatches or access locations are within ceilings this area must be strengthened for service trades.

Refer to pages 58/59 for steel stud spans and bridging. Installation and fixing procedures refer to diagrams below.

Fig. 1 Typical Stud Ceiling Application



Fig. 2 Stud Joist to Wall Track Fixing Masonry

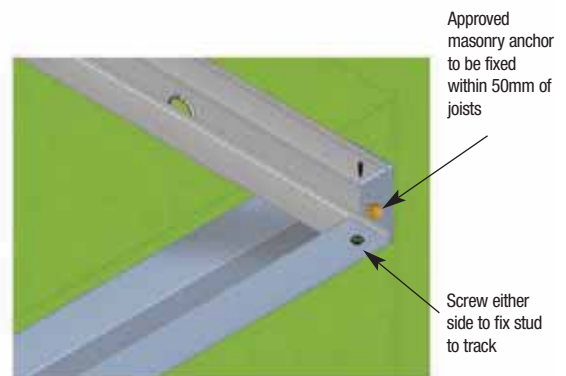


Fig. 3 Stud Joist to Wall Track Fixing

Note:
Where ceiling intersects a stud wall, the wall must be checked for the ceiling load

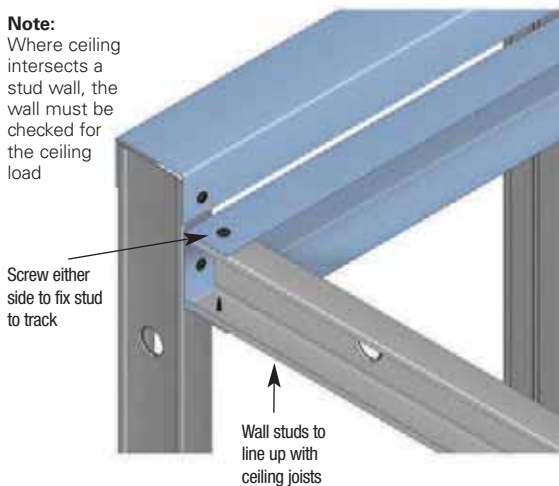


Fig. 4 Stud Joist Suspension Fixing 1

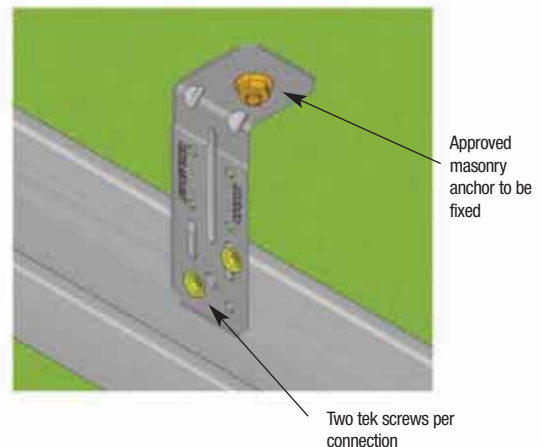
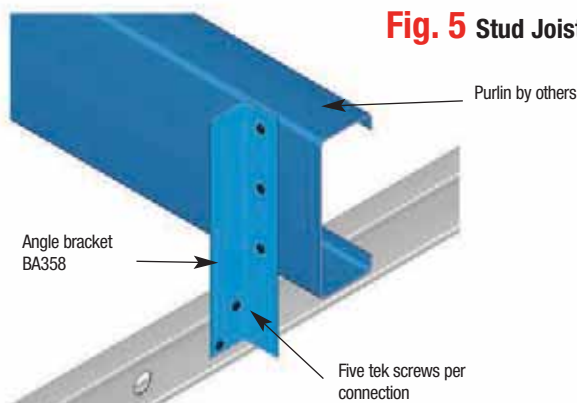


Fig. 5 Stud Joist Suspension Fixing 2



Note:
Refer to fastener manufacturers for fixings.

Note:
Fixings should be made to the web of the purlin unless otherwise approved by an engineer.

Installation Guide - Bulkheads

Bulkheads can be constructed using steel stud and track where furring channels become impractical. Bulkhead stud members will need to be fixed and braced to suitable structural supports, and ensure that the bulkheads meet required design loadings. Design loadings and specifications should be referred by a structural engineer or Studco Technical Services. An economical alternative to constructing bulkheads on-site is to use pre-fabricated modules. Studco can analyse comprehensive plans and reach innovative solutions for framing requirements with any architectural style. The possibilities include circular, curved, stepped or cantilevered framing which is easily suspended from slab or structure by using springhanger Part No. M534 subject to engineers approval. (See Fig 4). Spring hangers to be used only for preliminary suspension before bracing back to structure.

Fig. 1 Ceiling Bulkhead

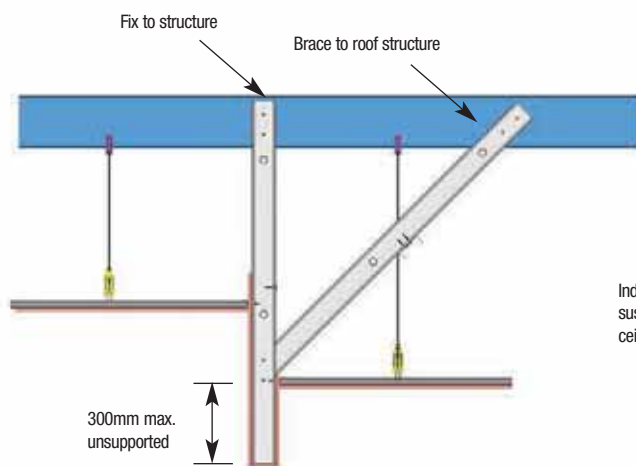


Fig. 2 Ceiling Bulkhead Bracing Detail

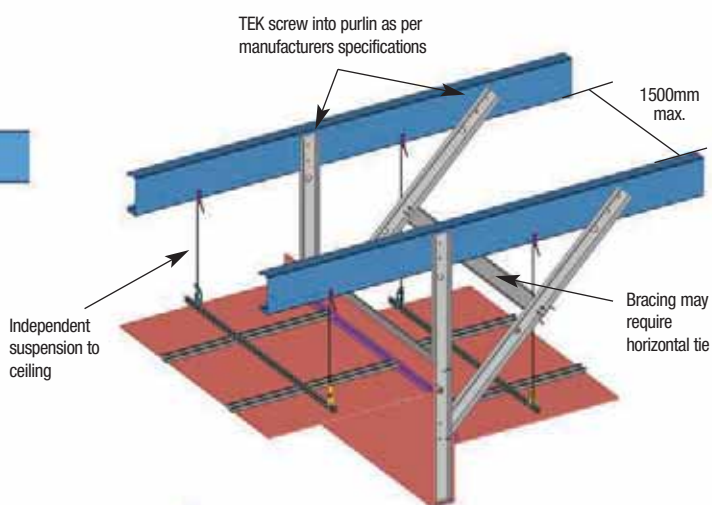


Fig. 4 M534 Spring Hanger Suspension

M534 Spring hanger can be used for preliminary bulkhead suspension for initial installation, then support with bracing back to structure



Fig. 3 Box Bulkhead

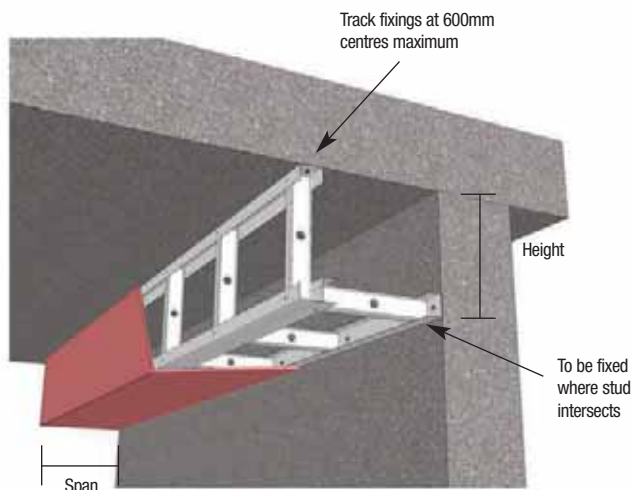
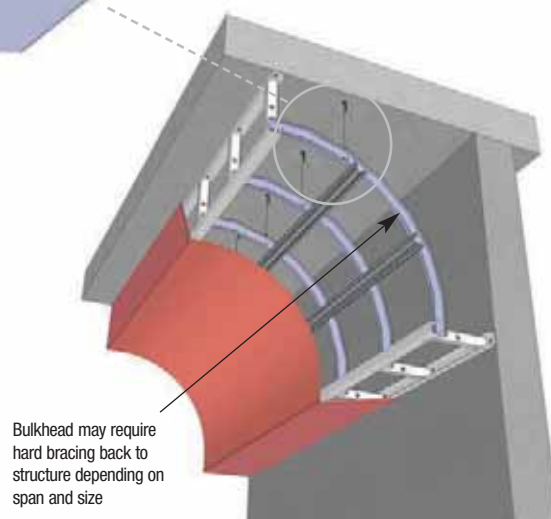


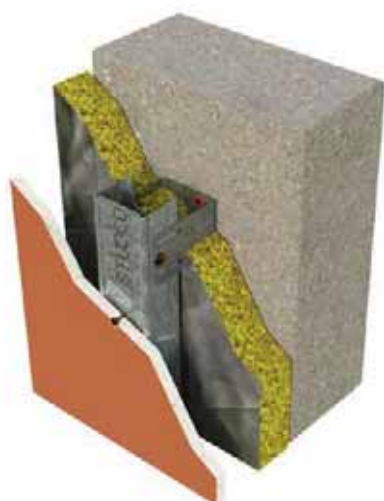
Fig. 5 Suspension of Prefabricated Bulkheads



Installation Guide - Slimwall



The Studco SLIMWALL system is a energy efficient wall system that is code compliant to NCC 2011 Section J (BCA 2011) Energy Efficiency criteria. The Studco SLIMWALL System consists of a C-channel section and a series of two brackets, designed to provide adjustable stand-off points for fixing the channel. The M163-6 SLIMWALL bracket is suitable for wall cavities 69-92mm and the M163-8 SLIMWALL bracket is suitable for wall cavities 85-108mm. Once the M163 brackets are fixed to external wall using shot pins or masonry anchors, the Studco Slimceil M355 channel are inserted into the brackets and screwed to the brackets, achieving a secure and permanent fixing which can support a wide variety of lining board types and weights. So whether you're chasing 6 Star Green Star on your next project or you just need a fast, flexible and fully code compliant wall system, choose the unique, new Studco SLIMWALL.



Studco Slimwall system used with CSR Bradford foil-faced builders blankets to achieve R2.8 rating.



Studco Slimwall system used with foilboard insulation to achieve R1.8 rating.

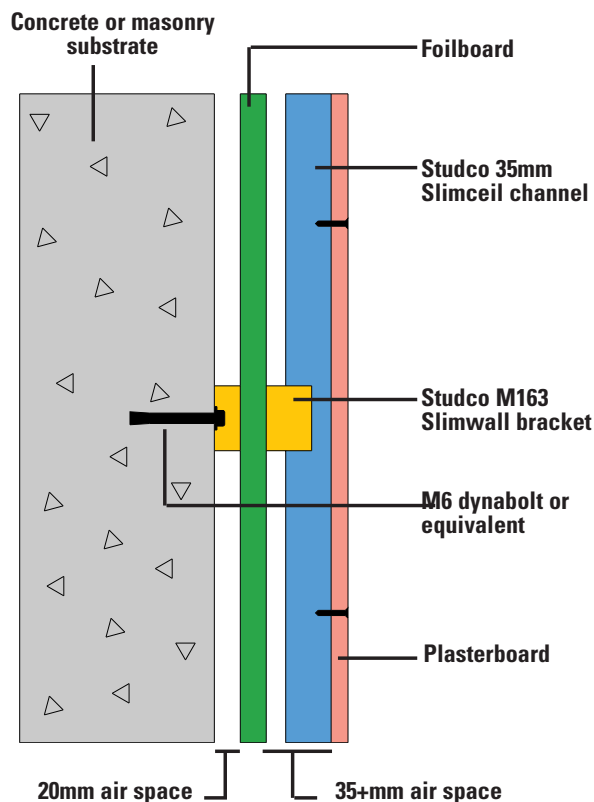


Table 62

SLIMWALL - MIN & MAX MEASUREMENTS			
PART No	Distance from substrate to back of plasterboard.		
	BRACKET SIZE	Min measurement	Max measurement
M163-6	68mm	70mm	90mm
M163-8	84mm	86mm	106mm

* This is the distance from the concrete substance and to the back face of the plasterboard lining.

Installation Guide - Strongarm



The Studco StrongArm™ structural wall brace is designed for rapid in-wall strengthening of free-standing steel stud walls commercial applications, where a structural member is required to limit deflection and improve rigidity. Made from 12mm thick steel and protected by a hot-dip galvanised coating, this super bracket can withstand extreme loads, is suitable for internal and external applications and is sure to save you time and money on your next project. Typical applications include; Free-standing walls, Balustrades, Nib walls, Bulkheads and Smoke baffles.

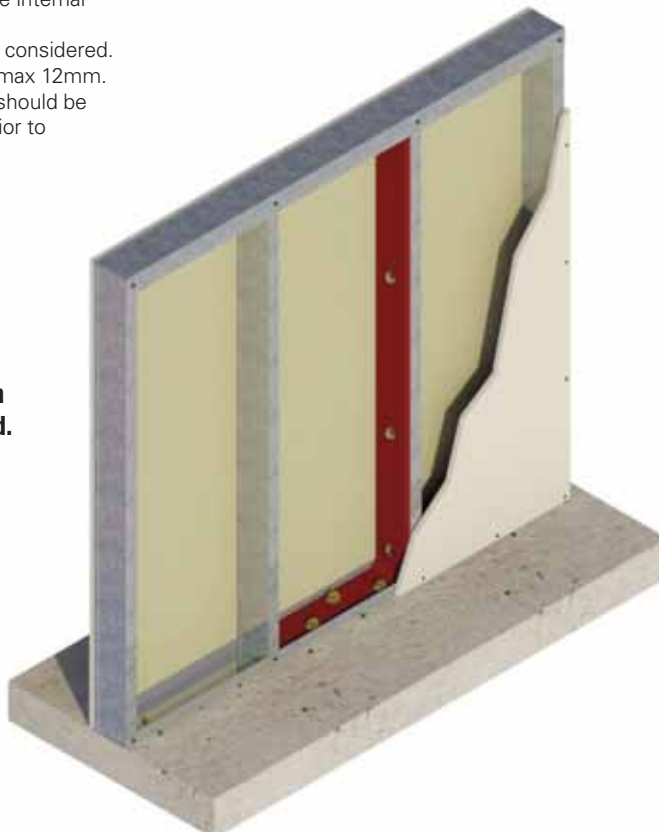
Table 63

Wall Height	STRONGARM - BRACKET/STUD SPACING	
600mm	Wall Stud type and Stud centres	Studco S92075 92mm x 0.75BMT lipped wall stud at 600mm centres
	M110 Bracket Spacing	Maximum 2400mm centers
900mm	Wall Stud type and Stud centres	Studco S92075 92mm x 0.75BMT lipped wall stud at 600mm centres
	M110 Bracket Spacing	Maximum 1800mm centers
1200mm	Wall Stud type and Stud centres	Studco S92075 92mm x 0.75BMT lipped wall stud at 600mm centres
	M110 Bracket Spacing	Maximum 1800mm centers
1500mm	Wall Stud type and Stud centres	Studco S92115 92mm x 1.15BMT lipped wall stud at 600mm centres
	M110 Bracket Spacing	Maximum 1800mm centers
1800mm	Wall Stud type and Stud centres	Studco S92115 92mm x 1.15BMT lipped wall stud at 450mm centres
	M110 Bracket Spacing	Maximum 1800mm centers
2100mm	Wall Stud type and Stud centres	Studco S92115 92mm x 1.15BMT lipped wall stud at 450mm centres
	M110 Bracket Spacing	Maximum 1350mm centers
2400mm	Wall Stud type and Stud centres	Studco S92115 92mm x 1.15BMT lipped wall stud at 450mm centres
	M110 Bracket Spacing	Maximum 900mm centers

Notes:

1. Use Minimum 4No x 12mm masonry anchors with minimum 60mm embedment into concrete is required to fix the bracket to the substrate.
2. The design is for max 0.4kpa Ultimate internal pressure.
3. The Live impact load of 0.75kN been considered.
4. The absolute deflection is limited to max 12mm.
5. All specifications and design criteria should be confirmed by the project engineer prior to installation.

M110 Strongarm bracket installed.



Section Properties & Dimensions - Wall Studs

Table 64

SECTION PROPERTIES - STUDS										
Section	BMT mm	Area mm ²	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
S51050	0.50	63.50	30.618	11.280	1213	528	21.96	13.33	6.360	5.29
S64050	0.50	70.00	50.016	12.135	1588	538	26.73	13.17	10.004	5.83
S64075	0.75	105.00	75.024	18.070	2382	803	26.73	13.12	15.007	19.69
S64115	1.15	161.00	115.037	27.386	3652	1222	26.73	13.04	23.010	70.97
S76055	0.55	84.15	83.103	14.133	2196	600	31.43	12.96	16.258	8.49
S76075	0.75	114.75	113.323	19.156	2994	815	31.43	12.92	22.170	21.52
S76115	1.15	175.95	173.762	29.017	4591	1240	31.43	12.84	33.994	77.56
S92055	0.55	92.95	127.904	14.972	2796	610	37.10	12.69	24.578	9.37
S92075	0.75	126.75	174.414	20.288	3812	828	37.10	12.65	33.515	23.77
S92115	1.15	194.35	267.435	30.718	5846	1259	37.10	12.57	51.390	85.68
S15007	0.75	171.00	549.611	23.126	7353	857	56.69	11.63	100.832	32.06
S15012	1.15	262.20	842.736	34.981	11274	1302	56.69	11.55	154.609	115.59

Material Specifications

The sections are cold formed from zinc coated steel strip manufactured to AS 1397. Each component having the following properties:
Steel Grade G2
Yield strength 300 MPa

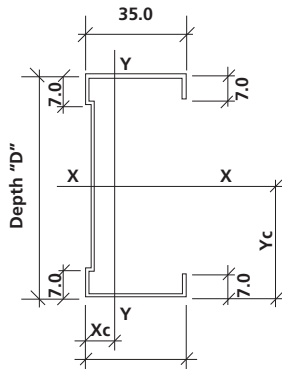


Table 65

SECTION DIMENSIONS - STUDS						
Part No.	D	Flange	Lips	BMT	Xc	Yc
S51050	50.8	35.0	7.0	0.50	12.84	25.40
S64050	63.5	35.0	7.0	0.50	11.75	31.75
S64075	63.5	35.0	7.0	0.75	11.81	31.75
S64115	63.5	35.0	7.0	1.15	11.92	31.75
S76055	76.2	35.0	7.0	0.55	10.89	38.10
S76075	76.2	35.0	7.0	0.75	10.95	38.10
S76115	76.2	35.0	7.0	1.15	11.07	38.10
S92055	92	35.0	7.0	0.55	9.92	46.00
S92075	92	35.0	7.0	0.75	9.98	46.00
S92115	92	35.0	7.0	1.15	10.11	46.00
S15007	150	35.0	7.0	0.75	7.59	75.00
S15012	150	35.0	7.0	1.15	7.73	75.00

Table 66

HEDA Jamb90

SECTION DIMENSIONS - HEDA						
Part No.	D	Flange	Lips	BMT	Xc	Yc
HJ9289155 [†]	92	89.9	25.4	1.55	41.33	46.0

FULL SECTION PROPERTIES - HEDA

Part No.	BMT mm	Area mm ²	Ixx 10 ³ mm ⁴	Iyy 10 ³ mm ⁴	Zxx 10 ³ mm ³	Zyy 10 ³ mm ³	rx mm	ry mm	Iw 10 ⁶ mm ⁶	J mm ³
HJ9289155 [†]	1.55	479.69	730.1	553.5	15.7	12.03	39.014	33.968	1280	384.15

Table 67

HEDA Jamb63

SECTION DIMENSIONS - HEDA						
Part No.	D	Flange	Lips	BMT	Xc	Yc
HJ9263150	92	63	16	1.50	23.65	46
HJ15063115	150	63	16	1.15	19.34	75

FULL SECTION PROPERTIES - HEDA

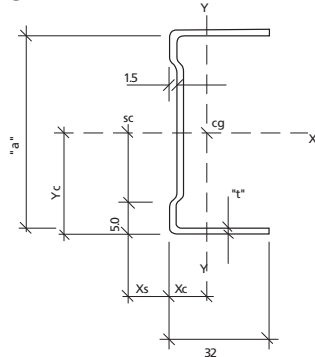
Part No.	BMT mm	Area mm ²	Ixx 10 ³ mm ⁴	Iyy 10 ³ mm ⁴	Zxx 10 ³ mm ³	Zyy 10 ³ mm ³	rx mm	ry mm	Iw 10 ⁶ mm ⁶	J mm ³
HJ9263150	1.5	367	538.9	207.7	11.9	5.41	38.31	23.78	419.6	275
HJ15063115	1.15	350	1268.2	192	17.04	4.46	60.21	23.43	889.5	154

Notes:

1. Section properties are approximate only and may be subject to revision.
2. Section properties tabulated are gross section properties.
3. The strength and serviceability section capacities are based on effective section properties calculated in accordance with AS 4600 "Cold Formed Steel Structures Code".
4. *Steel Grade G450. †Steel Grade G300. Jamb90 Steel Grade G300.

Section Properties & Dimensions - Track

C Channel Track



Material Specifications

The sections are cold formed from zinc coated steel strip manufactured to AS 1397. Each component having the following properties

Steel Grade	G2
Yield strength	300 MPa
Coating class	Z275

Table 68

C CHANNEL TRACK																
Dimensions					Gross Area	2nd Moment of Area		Section Modulus		Radius of Gyration		Form Factor	B	Torsion Constant	Warping Constant	
a	BMT	t	Xc	Xs	Xo		Ixx	Iyy	Zxx	Zyy	rxx	ryy	Q		J	Iw
mm	mm		mm	mm	mm	mm ²	10 ³ mm ⁴	10 ³ mm ⁴	10 ³ mm ³	10 ³ mm ³	mm	mm		mm	mm ⁴	10 ⁶ mm ⁶
51	0.55		8.53	11.53	20.06	61.05	27.880	5.323	1.072	0.244	21.37	9.34	0.47	62.73	6.16	2.66
64	0.55		7.92	10.92	18.84	67.10	46.22	5.644	1.422	0.252	26.25	9.17	0.44	69.94	6.77	4.49
76	0.55		7.25	10.36	17.61	74.8	70.325	5.903	1.803	0.256	30.66	8.88	0.40	81.35	7.54	6.89
92	0.55		6.64	9.75	16.39	83.60	108.79	6.129	2.314	0.260	36.07	8.59	0.36	97.83	8.43	10.67
51	0.75		8.48	11.50	19.98	83.25	37.59	7.216	1.445	0.329	21.25	9.31	0.58	62.55	15.61	3.56
64	0.75		7.88	10.88	18.76	91.50	62.43	7.652	1.921	0.340	26.12	9.15	0.55	69.72	17.16	6.02
76	0.75		7.21	10.33	17.53	102.0	95.108	8.006	2.438	0.345	30.54	8.86	0.50	81.09	19.13	9.25
92	0.75		6.61	9.72	16.32	114.0	147.28	8.359	3.133	0.351	35.94	8.56	0.45	97.51	21.38	14.35
150	0.75		5.16	7.95	13.12	159.0	485.87	9.208	6.309	0.365	55.28	7.61	0.33	186.41	29.81	45.58
51	1.0		8.42	11.45	19.87	111.0	49.419	9.551	1.900	0.432	21.1	9.28	0.70	62.30	37.00	4.65
64	1.0		7.82	10.83	18.65	122.0	82.261	10.131	2.531	0.446	25.97	9.11	0.67	69.45	40.67	7.87
76	1.0		7.16	10.28	17.44	136.0	125.497	10.602	3.217	0.454	30.38	8.83	0.61	80.75	45.33	12.11
92	1.0		6.56	9.61	16.23	152.0	194.602	11.071	4.140	0.462	35.78	8.53	0.56	97.09	50.67	18.81
150	1.0		5.13	7.91	13.04	212.0	643.75	12.200	8.360	0.480	55.10	7.59	0.42	185.53	70.67	59.86
76	1.15		7.13	10.25	17.38	156.4	143.42	12.143	3.677	0.577	30.28	8.81	0.68	80.54	68.95	13.76
92	1.15		6.54	9.64	16.18	174.8	222.57	12.681	4.735	0.527	35.68	8.52	0.62	96.83	77.06	21.40
150	1.15		5.11	7.89	13.00	243.8	737.52	13.97	9.578	0.548	55.00	7.57	0.46	184.99	107.48	68.22

C Channel Hemmed Track

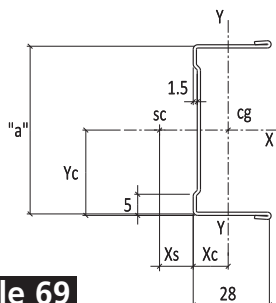


Table 69

<i>C CHANNEL HEMMED TRACK</i>														
Dimensions					Gross Area	2nd Moment of Area		Section Modulus		Radius of Gyration		By	Torsion Constant	Warping Constant
a	BMT	Xc	Xs	Xo		Ixx	Iyy	Zxx	Zyy	rxx	ryy	mm	J	Iw
mm	mm	mm	mm	mm	mm ²	10 ³ mm ⁴	10 ³ mm ⁴	10 ³ mm ³	10 ³ mm ³	mm	mm	mm	mm ⁴	10 ⁶ mm ⁶
64	0.5	8.28	8.13	16.41	63.24	43.267	5.043	1.331	0.271	26.16	8.93	69.88	5.3	3.42
76	0.5	7.74	7.6	15.34	69.24	63.818	5.255	1.658	0.275	30.36	8.71	81.58	5.79	5.07
92	0.5	7.15	6.973	14.123	77.24	99.05	5.486	2.130	0.279	35.81	8.43	104.57	6.46	7.89

Notes:

- Section properties are approximate only and may be subject to revision.
- Section properties tabulated are gross section properties.
- The strength and serviceability section capacities are based on effective section properties calculated in accordance with AS 4600 "Cold Formed Steel Structures Code".

Section Properties & Dimensions - Deflection Track

Deflection Head Track

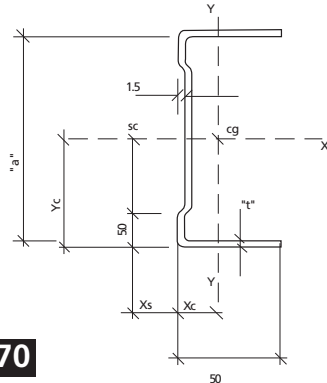


Table 70

Material Specifications

The sections are cold formed from zinc coated steel strip manufactured to AS 1397. Each component having the following properties

Steel Grade	G2
Yield strength	300 MPa
Coating class	Z275

DEFLECTION HEAD TRACK																
Dimensions					Gross Area	2nd Moment of Area		Section Modulus		Radius of Gyration		Form Factor	By	Torsion Constant	Warping Constant	
a	BMT	t	Xc	Xs	Xo		lxx	lyy	Zxx	Zyy	rxx	ryy	Q	J	Iw	
mm	mm	mm	mm	mm	mm	mm ²	10 ³ mm ⁴	10 ³ mm ⁴	10 ³ mm ³	10 ³ mm ³	mm	mm		mm	mm ⁴	10 ⁶ mm ⁶
64	0.55	15.91	20.73	36.65	90.2	68.761	23.819	2.128	0.693	27.61	16.25	0.33	96.61	9.10	18.22	
76	0.55	14.94	20.04	34.97	96.8	102.200	25.138	2.640	0.711	32.49	16.11	0.31	101.6	9.76	27.59	
92	0.55	13.81	19.24	33.05	105.6	154.760	26.530	3.320	0.727	38.28	15.85	0.29	110.60	10.65	42.51	
150	0.55	11.05	16.77	27.81	136.4	469.750	30.150	6.215	0.768	58.69	14.87	0.23	162.53	13.75	132.0	
64	0.75	15.98	20.77	36.76	123.0	94.550	32.610	2.910	0.948	27.73	16.28	0.41	96.69	23.06	25.16	
76	0.75	15.00	20.08	35.08	132.0	140.33	34.414	3.615	0.972	32.61	16.15	0.39	101.69	24.75	38.05	
92	0.75	13.88	19.27	33.15	144.0	212.37	36.32	4.54	0.994	38.40	15.88	0.36	110.69	27.00	58.57	
150	0.75	11.09	16.81	27.90	186.0	643.42	41.59	8.493	1.050	58.82	14.89	0.29	162.64	34.88	181.00	
64	1.0	16.07	20.82	36.89	164.0	127.410	43.720	3.89	1.270	27.89	16.33	0.50	96.79	54.67	34.07	
76	1.0	15.09	20.12	35.21	176.0	188.830	46.110	4.830	1.302	32.75	16.19	0.48	101.79	58.67	51.46	
92	1.0	13.95	19.32	33.27	192.0	285.42	48.65	6.072	1.331	38.56	15.92	0.45	110.81	64.00	79.11	
150	1.0	11.15	16.85	28.00	248.0	862.638	55.243	11.35	1.403	58.98	14.93	0.36	162.77	82.67	244.0	
64	1.15	16.13	20.85	36.97	188.0	147.44	50.43	4.480	1.460	27.96	16.35	0.56	96.84	83.14	39.56	
76	1.15	15.14	20.15	35.29	202.4	218.34	53.19	5.562	1.500	32.84	16.21	0.53	101.85	89.22	59.68	
92	1.15	14.00	19.35	33.35	220.80	329.78	56.10	6.990	1.533	38.650	15.94	0.50	110.86	97.34	91.68	
150	1.15	11.19	16.88	28.07	285.20	995.319	63.69	13.070	1.617	59.08	14.94	0.40	162.85	125.73	283.0	

Deflection Head Hemmed Track

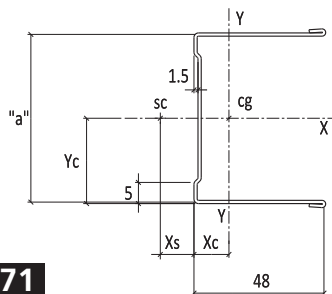


Table 71

Material Specifications

The sections are cold formed from zinc coated steel strip manufactured to AS 1397. Each component having the following properties

Steel Grade	G2
Yield strength	300 MPa
Coating class	Z275

DEFLECTION HEAD HEMMED TRACK																
Dimensions					Gross Area	2nd Moment of Area		Section Modulus		Radius of Gyration		By	Torsion Constant	Warping Constant		
a	BMT	Xc	Xs	Xo		lxx	lyy	Zxx	Zyy	rxx	ryy		J	Iw		
mm	mm	mm	mm	mm	mm ²	10 ³ mm ⁴	10 ³ mm ⁴	10 ³ mm ³	10 ³ mm ³	mm	mm	mm	mm ⁴	10 ⁶ mm ⁶		
64	0.7	14.15	18.57	32.72	132.44	93.371	31.82	2.855	2.435	26.55	15.50	87.85	18.87	19.4		
76	0.7	13.12	17.99	31.11	144.63	137.059	33.465	3.542	2.384	30.78	15.21	92.44	20.24	28.7		
92	0.7	12	17.22	29.22	160.88	211.66	35.271	4.532	2.337	36.27	14.81	100.95	22.07	44.4		

Notes:

- Section properties are approximate only and may be subject to revision.
- Section properties tabulated are gross section properties.
- The strength and serviceability section capacities are based on effective section properties calculated in accordance with AS 4600 "Cold Formed Steel Structures Code".

Span Tables - Internal Stud Wall Heights

Plasterboard

Table 72

MAXIMUM WALL HEIGHTS - LINING BOTH SIDES L/240										
PLASTER THICKNESS (mm)		10mm PLASTERBOARD			13mm PLASTERBOARD			16mm PLASTERBOARD		
STUD SPACING (mm)		300mm	450mm	600mm	300mm	450mm	600mm	300mm	450mm	600mm
PART NO.	STUD SIZE	MAX WALL HEIGHT (mm)								
S51050	51mm x 0.50BMT	3400	3050	2790	3730	3450	3195	3830	3550	3350
S64050	64mm x 0.50BMT	3980	3630	3400	4270	3990	3700	4460	4130	3900
S64075	64mm x 0.75BMT	4550	4150	3900	4750	4400	4200	4930	4600	4350
S64115	64mm x 1.15BMT	4940	4460	4180	5100	4680	4400	5260	4820	4550
S76055	76mm x 0.55BMT	4530	4050	3730	4850	4450	4160	5060	4600	4300
S76075	76mm x 0.75BMT	5250	4750	4450	5650	5250	4920	5850	5460	5100
S76115	76mm x 1.15BMT	5690	5070	4670	6030	5530	5180	6220	5690	5400
S92055	92mm x 0.55BMT	5350	4870	4560	5640	5210	4850	5850	5460	5100
S92075	92mm x 0.75BMT	5920	5280	4850	6250	5750	5480	6490	6050	5650
S92115	92mm x 1.15BMT	6400	5650	5150	6720	6180	5770	6930	6380	5950
S15007	150mm x 0.75BMT	7850	7160	6590	8140	7560	6750	8250	7670	7290
S15012	150mm x 1.15BMT	8590	7760	7280	8760	8040	7590	8900	8180	7710

Table 73

MAXIMUM WALL HEIGHTS - LINING ONE SIDE L/240										
PLASTER THICKNESS (mm)		10mm PLASTERBOARD			13mm PLASTERBOARD			16mm PLASTERBOARD		
STUD SPACING (mm)		300mm	450mm	600mm	300mm	450mm	600mm	300mm	450mm	600mm
PART NO.	STUD SIZE	MAX WALL HEIGHT (mm)								
S51050	51mm x 0.50BMT	2900	2530	2350	2910	2540	2360	2920	2550	2370
S64050	64mm x 0.50BMT	3400	2980	2730	3410	2990	2750	3470	3060	2760
S64075	64mm x 0.75BMT	3950	3450	3180	4020	3540	3250	4060	3560	3280
S64115	64mm x 1.15BMT	4450	3880	3550	4500	3950	3600	4550	3980	3620
S76055	76mm x 0.55BMT	4050	3530	3220	4140	3600	3250	4160	3620	3280
S76075	76mm x 0.75BMT	4500	3950	3600	4700	4100	3750	4730	4180	3800
S76115	76mm x 1.15BMT	5130	4480	4070	5150	4490	4080	5170	4500	4090
S92055	92mm x 0.55BMT	4640	4080	3650	4660	4090	3670	4680	4100	3690
S92075	92mm x 0.75BMT	5200	4540	4150	5290	4610	4190	5320	4630	4220
S92115	92mm x 1.15BMT	5930	5180	4700	5950	5200	4720	5970	5220	4730
S15007	150mm x 0.75BMT	7370	6600	5350	7390	6650	5390	7400	6680	5430
S15012	150mm x 1.15BMT	8300	7450	6850	8320	7480	6880	8350	7500	6900

* See page 37 for nogging requirements.

Notes:

1. Serviceability limits are as stated on tables.
2. Tables 57-60 are for internal non-load bearing walls.
3. Internal design pressures = 0.25 kPa serviceability and 0.375 kPa strength as per BCA 2009.
4. It is assumed the top plate is restrained laterally.
5. Shelf loading has not been allowed for in tabulated wall heights.
6. Noggings to be used in accordance with Table 58 on page 38.
7. The above wall heights are suitable for up to two layers of the nominated lining thickness.

Span Tables - Internal Stud Wall Heights

Brittle Substrates - (ie. tiles, glass etc.)

Table 74

MAXIMUM WALL HEIGHTS - LINING BOTH SIDES L/360										
PLASTER THICKNESS (mm)		10mm PLASTERBOARD			13mm PLASTERBOARD			16mm PLASTERBOARD		
STUD SPACING (mm)		300mm	450mm	600mm	300mm	450mm	600mm	300mm	450mm	600mm
PART NO.	STUD SIZE	MAX WALL HEIGHT (mm)								
S51050	51mm x 0.50BMT	3050	2750	2570	3340	3070	2910	3360	3150	3050
S64050	64mm x 0.50BMT	3520	3210	3110	3760	3520	3350	3950	3700	3600
S64075	64mm x 0.75BMT	4000	3660	3490	4200	3910	3730	4420	4100	3910
S64115	64mm x 1.15BMT	4330	3940	3680	4500	4150	3920	4680	4300	4060
S76055	76mm x 0.55BMT	4030	3680	3350	4280	3930	3750	4460	4150	3900
S76075	76mm x 0.75BMT	4620	4200	4000	4810	4540	4310	5160	4750	4550
S76115	76mm x 1.15BMT	5000	4520	4210	5260	4820	4580	5480	5040	4800
S92055	92mm x 0.55BMT	4710	4310	4050	4970	4600	4370	5190	4810	4610
S92075	92mm x 0.75BMT	5230	4750	4420	5530	5170	4870	5760	5350	5100
S92115	92mm x 1.15BMT	5700	5090	4670	6000	5440	5150	6190	5640	5350
S15007	150mm x 0.75BMT	7150	6370	5880	7350	6680	6270	7540	6850	6440
S15012	150mm x 1.15BMT	7950	7060	6480	8200	7320	6840	8310	7480	6970

Table 75

MAXIMUM WALL HEIGHTS - LINING ONE SIDE L/360										
PLASTER THICKNESS (mm)		10mm PLASTERBOARD			13mm PLASTERBOARD			16mm PLASTERBOARD		
STUD SPACING (mm)		300mm	450mm	600mm	300mm	450mm	600mm	300mm	450mm	600mm
PART NO.	STUD SIZE	MAX WALL HEIGHT (mm)								
S51050	51mm x 0.50BMT	2520	2240	2020	2540	2260	2040	2560	2280	2060
S64050	64mm x 0.50BMT	2960	2590	2360	2980	2600	2370	3100	2690	2450
S64075	64mm x 0.75BMT	3450	3000	2750	3560	3120	2850	3580	3150	2880
S64115	64mm x 1.15BMT	3880	3400	3100	3970	3490	3170	3990	3510	3190
S76055	76mm x 0.55BMT	3520	3080	2800	3670	3220	2950	3700	3260	2960
S76075	76mm x 0.75BMT	3940	3430	3120	4100	3700	3400	4140	3770	3460
S76115	76mm x 1.15BMT	4460	3890	3550	4470	3900	3570	4480	3910	3590
S92055	92mm x 0.55BMT	4070	3560	3230	4160	3630	3260	4200	3650	3280
S92075	92mm x 0.75BMT	4530	3960	3610	4690	4120	3750	4700	4130	3780
S92115	92mm x 1.15BMT	5160	4520	4100	5250	4580	4150	5300	4600	4160
S15007	150mm x 0.75BMT	6680	5810	5270	6700	5830	5290	6730	5850	5300
S15012	150mm x 1.15BMT	7620	6660	6060	7640	6690	6090	7660	6730	6110

* See page 37 for nogging requirements.

Notes:

1. Serviceability limits are as stated on tables.
2. Tables 57-60 are for internal non-load bearing walls.
3. Internal design pressures = 0.25 kPa serviceability and 0.375 kPa strength as per BCA 2009.
4. It is assumed the top plate is restrained laterally.
5. Shelf loading has not been allowed for in tabulated wall heights.
6. Noggings to be used in accordance with Table 58 on page 38.
7. The above wall heights are suitable for up to two layers of the nominated lining thickness.

Span Tables - Stud Ceilings - Single Span

Single span studs as ceiling joists - no access (non Trafficable)

Table 76

SINGLE SPAN STUDS AS CEILING JOISTS - STUD SPACING 300mm												
STUD SIZE	51mm	64mm			76mm			92mm			150mm	
STUD BMT (mm)	0.5	0.5	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.75	1.15
PLASTERBOARD LINING	STUD SPACING 300mm											
	MAX STUD CEILING SPAN (mm)											
1 layer 10mm	2300	2680	3080	3450	3160	3530	3940	3670	4050	4550	5685	6258
1 layer 13mm	2270	2650	3120	3490	3260	3660	3860	3680	4080	4510	5560	6175
1 layer 16mm	1930	2350	2710	3100	2800	3210	3350	3100	3550	3870	5000	5610
2 layers 13mm	2100	2450	2900	3230	3050	3430	3660	3380	3810	4200	5400	6050
2 layers 16mm	1990	2380	2790	3060	2890	3260	3480	3220	3660	4040	5160	5800

Table 77

SINGLE SPAN STUDS AS CEILING JOISTS - STUD SPACING 450mm												
STUD SIZE	51mm	64mm			76mm			92mm			150mm	
STUD BMT (mm)	0.5	0.5	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.75	1.15
PLASTERBOARD LINING	STUD SPACING 450mm											
	MAX STUD CEILING SPAN (mm)											
1 layer 10mm	2020	2360	2720	3080	2790	3110	3500	3230	3580	4060	5150	5680
1 layer 13mm	1990	2320	2760	3050	2860	3250	3450	3180	3620	3990	5000	5660
1 layer 16mm	1780	2120	2510	2750	2540	2960	3080	2800	3230	3540	4590	5210
2 layers 13mm	1840	2140	2570	2860	2630	3030	3200	3000	3350	3700	4790	5400
2 layers 16mm	1750	2110	2460	2710	2490	2900	3080	2800	3200	3550	4560	5190

Table 78

SINGLE SPAN STUDS AS CEILING JOISTS - STUD SPACING 600mm												
STUD SIZE	51mm	64mm			76mm			92mm			150mm	
STUD BMT (mm)	0.5	0.5	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.75	1.15
PLASTERBOARD LINING	STUD SPACING 600mm											
	MAX STUD CEILING SPAN (mm)											
1 layer 10mm	1870	2160	2480	2810	2540	2840	3200	2940	3280	3700	4670	5180
1 layer 13mm	1830	2150	2530	2800	2590	3000	3150	2910	3310	3650	4650	5280
1 layer 16mm	1760	2120	2480	2720	2540	2950	3050	2800	3210	3500	4520	5120
2 layers 13mm	1680	1960	2360	2600	2410	2800	2950	2690	3060	3400	4400	4930
2 layers 16mm	1590	1880	2260	2490	2250	2650	2790	2540	2910	3220	4180	4700

Table 79

MINIMUM TOP FLANGE BRIDGING REQUIREMENTS	
Stud Ceiling Span (mm)	Rows of Nogging Bridging
0 - 2500	0
2500 - 4000	1
4000 - 6000	2
6000 - 8000	3

- NOTES:**
- 1) Strength based on 1.2G + Wu Ws - 0.25kPa Wu - 0.375kPa
 - 2) Serviceability based on G Limit Span/480 Max 10mm
W Limit Span/300 Max 12mm
 - 3) Tables based on non trafficable (non accessible) Ceiling space
 - 4) Tables based on plaster glued and screwed to tension edge.
 - 5) Supporting structures or walls to be independantly checked.
 - 6) Bridging requirements as per Table 79 (this page) and installation guide on page 49.

Span Tables - Stud Ceilings - Double Span

Double span studs as ceiling joists - no access (non Trafficable)

Table 80

DOUBLE SPAN STUDS AS CEILING JOISTS - STUD SPACING 300mm												
STUD SIZE	51mm	64mm			76mm			92mm			150mm	
STUD BMT (mm)	0.5	0.5	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.75	1.15
PLASTERBOARD LINING	STUD SPACING 300mm											
	MAX STUD CEILING SPAN (mm)											
1 layer 10mm	3090	3480	4100	4600	4100	4600	5170	4550	5150	5870	7040	8170
1 layer 13mm	3030	3410	4110	4580	4050	4700	5150	4480	5200	5800	7050	8260
1 layer 16mm	2950	3280	4000	4400	3920	4600	5050	4340	5130	5730	6870	8080
2 layers 13mm	2780	3100	3840	4290	3710	4420	4910	4090	5020	5600	6690	8010
2 layers 16mm	2640	2890	3650	4100	3420	4250	4630	3800	4750	5330	6290	7810

Table 81

DOUBLE SPAN STUDS AS CEILING JOISTS - STUD SPACING 450mm												
STUD SIZE	51mm	64mm			76mm			92mm			150mm	
STUD BMT (mm)	0.5	0.5	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.75	1.15
PLASTERBOARD LINING	STUD SPACING 450mm											
	MAX STUD CEILING SPAN (mm)											
1 layer 10mm	2670	2870	3650	4100	3390	4150	4650	3750	4670	5290	6170	7150
1 layer 13mm	2600	2800	3600	4050	3350	4150	4600	3680	4650	5200	6100	7210
1 layer 16mm	2500	2710	3500	3900	3220	4080	4520	3550	4590	5140	5830	7080
2 layers 13mm	2300	2530	3390	3820	3030	3890	4310	3390	4330	5020	5530	7010
2 layers 16mm	2160	2370	3190	3620	2820	3650	4130	3130	4060	4720	5190	6850

Table 82

DOUBLE SPAN STUDS AS CEILING JOISTS - STUD SPACING 600mm												
STUD SIZE	51mm	64mm			76mm			92mm			150mm	
STUD BMT (mm)	0.5	0.5	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.75	1.15
PLASTERBOARD LINING	STUD SPACING 600mm											
	MAX STUD CEILING SPAN (mm)											
1 layer 10mm	2330	2500	3300	3750	2950	3800	4290	3280	4250	4830	5400	7000
1 layer 13mm	2230	2450	3280	3690	2900	3750	4200	3190	4150	4800	5300	6850
1 layer 16mm	2200	2360	3190	3580	2780	3600	4150	3130	4020	4720	5150	6560
2 layers 13mm	2010	2200	3020	3430	2610	3390	3950	2930	3750	4560	4850	6400
2 layers 16mm	1870	2090	2860	3280	2440	3160	4050	2720	3530	4370	4590	6050

- NOTES:**
- 1) Strength based on $1.2G + W_u$ $W_s - 0.25kPa$ $W_u - 0.375kPa$
 - 2) Serviceability based on $G \text{ Limit } \text{ Span}/480 \text{ Max } 10mm$
 $W \text{ Limit } \text{ Span}/300 \text{ Max } 12mm$
 - 3) Tables based on non trafficable (non accessible) Ceiling space
 - 4) Tables based on plaster glued and screwed to tension edge.
 - 5) Supporting structures or walls to be independantly checked.
 - 6) Bridging requirements as per *Table 83* (this page) and installation guide on page 49.

Table 83

MINIMUM TOP FLANGE BRIDGING REQUIREMENTS	
Stud Ceiling Span (mm)	Rows of Nogging Bridging
0 - 2500	0
2500 - 4000	1
4000 - 6000	2
6000 - 8000	3

Shelf Loadings - Stud Walls

Table 84

MAXIMUM ALLOWABLE SHELF LOADS- WALL HEIGHT 2400mm							
WALL HEIGHT - 2400mm		NUMBER OF SHELVES SPACED EQUALLY OVER FULL HEIGHT					
STUD SIZE	SHELF WIDTH mm	1	2	3	4	5	6
		MAXIMUM ALLOWABLE SHELF LOAD IN kg PER METRE RUN OF SHELF					
64mm x 0.55BMT	200	122	67	55	51	49	47
	300	81	45	37	34	33	32
	400	61	33	27	26	25	24
64mm x 0.75BMT	200	183	100	82	77	74	71
	300	122	67	55	51	49	47
	400	92	50	41	39	37	36
76mm x 0.55BMT	200	203	111	91	85	82	79
	300	135	74	61	57	55	53
	400	101	55	46	43	41	39
76mm x 0.75BMT	200	277	151	124	116	112	108
	300	184	101	83	78	75	72
	400	138	76	62	58	56	54
76mm x 1.15BMT	200	424	232	190	179	172	165
	300	283	155	127	119	115	110
	400	212	116	95	89	86	83

Table 85

MAXIMUM ALLOWABLE SHELF LOADS- WALL HEIGHT 2700mm							
WALL HEIGHT - 2700mm		NUMBER OF SHELVES SPACED EQUALLY OVER FULL HEIGHT					
STUD SIZE	SHELF WIDTH mm	1	2	3	4	5	6
		MAXIMUM ALLOWABLE SHELF LOAD IN kg PER METRE RUN OF SHELF					
64mm x 0.55BMT	200	109	59	49	46	44	42
	300	72	40	32	30	29	28
	400	54	30	24	23	22	21
64mm x 0.75BMT	200	163	89	73	69	66	63
	300	109	59	49	46	44	42
	400	81	45	37	34	33	32
64mm x 1.15BMT	200	250	137	112	105	101	97
	300	166	91	75	70	67	65
	400	92	50	41	39	37	36
76mm x 0.55BMT	200	180	99	81	76	73	70
	300	120	66	54	51	49	47
	400	90	49	40	38	37	35
76mm x 0.75BMT	200	246	134	110	104	100	96
	300	164	90	74	69	66	64
	400	138	76	62	58	56	54
76mm x 1.15BMT	200	377	206	169	159	153	147
	300	251	137	113	106	102	98
	400	212	116	95	89	86	83

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Table 86

MAXIMUM ALLOWABLE SHELF LOADS- WALL HEIGHT 3000mm							
WALL HEIGHT - 3000mm		NUMBER OF SHELVES SPACED EQUALLY OVER FULL HEIGHT					
STUD SIZE	SHELF WIDTH mm	1	2	3	4	5	6
		MAXIMUM ALLOWABLE SHELF LOAD IN kg PER METRE RUN OF SHELF					
64mm x 0.55BMT	200	98	53	44	41	40	38
	300	65	36	29	27	26	25
	400	49	27	22	21	20	19
64mm x 0.75BMT	200	147	80	66	62	59	57
	300	98	53	44	41	40	38
	400	73	40	33	31	30	28
64mm x 1.15BMT	200	225	123	101	95	91	87
	300	150	82	67	63	61	58
	400	112	61	50	47	45	44
76mm x 0.55BMT	200	162	89	73	68	66	63
	300	108	59	49	46	44	42
	400	81	44	36	34	33	32
76mm x 0.75BMT	200	221	121	99	93	90	86
	300	148	81	66	62	60	57
	400	111	61	50	47	45	43
76mm x 1.15BMT	200	339	186	152	143	137	132
	300	226	124	102	95	92	88
	400	170	93	76	71	69	66

Table 87

MAXIMUM ALLOWABLE SHELF LOADS- WALL HEIGHT 3600mm							
WALL HEIGHT - 3600mm		NUMBER OF SHELVES SPACED EQUALLY OVER FULL HEIGHT					
STUD SIZE	SHELF WIDTH mm	1	2	3	4	5	6
		MAXIMUM ALLOWABLE SHELF LOAD IN kg PER METRE RUN OF SHELF					
76mm x 0.55BMT	200	135	74	61	57	55	53
	300	90	49	40	38	37	35
	400	68	37	30	28	27	26
76mm x 0.75BMT	200	184	101	83	78	75	72
	300	123	67	55	52	50	48
	400	92	50	41	39	37	36
76mm x 1.15BMT	200	283	155	127	119	115	110
	300	189	103	85	79	76	73
	400	141	77	63	60	57	55
92mm x 0.55BMT	200	208	114	93	88	84	80
	300	139	76	62	58	56	54
	400	104	57	47	44	42	40
92mm x 0.75BMT	200	284	155	127	120	115	110
	300	189	104	85	80	77	74
	400	142	78	64	60	57	55
92mm x 1.15BMT	200	435	238	195	183	176	169
	300	290	159	130	122	118	113
	400	218	119	98	92	88	85

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Table 88

MAXIMUM ALLOWABLE SHELF LOADS- WALL HEIGHT 4200mm							
WALL HEIGHT - 4200mm		NUMBER OF SHELVES SPACED EQUALLY OVER FULL HEIGHT					
STUD SIZE	SHELF WIDTH mm	1	2	3	4	5	6
		MAXIMUM ALLOWABLE SHELF LOAD IN kg PER METRE RUN OF SHELF					
76mm x 0.55BMT	200	116	63	52	49	47	45
	300	77	42	35	33	31	30
	400	58	32	26	24	23	23
76mm x 0.75BMT	200	158	86	71	67	64	61
	300	105	58	47	44	43	41
	400	79	43	35	33	32	31
76mm x 1.15BMT	200	242	133	109	102	98	94
	300	162	88	73	68	65	63
	400	121	66	54	51	49	47
92mm x 0.55BMT	200	178	98	80	75	72	69
	300	119	65	53	50	48	46
	400	89	49	40	38	36	35
92mm x 0.75BMT	200	243	133	109	102	99	95
	300	162	89	73	68	66	63
	400	122	67	55	51	49	47
92mm x 1.15BMT	200	373	204	168	157	151	145
	300	249	136	112	105	101	97
	400	187	102	84	79	76	73

Table 89

MAXIMUM ALLOWABLE SHELF LOADS- WALL HEIGHT 4800mm							
WALL HEIGHT - 4800mm		NUMBER OF SHELVES SPACED EQUALLY OVER FULL HEIGHT					
STUD SIZE	SHELF WIDTH mm	1	2	3	4	5	6
		MAXIMUM ALLOWABLE SHELF LOAD IN kg PER METRE RUN OF SHELF					
76mm x 0.55BMT	200	101	55	46	43	41	39
	300	68	37	30	28	27	26
	400	51	28	23	21	21	20
76mm x 0.75BMT	200	138	76	62	58	56	54
	300	92	50	41	39	37	36
	400	69	38	31	29	28	27
76mm x 1.15BMT	200	212	116	95	89	86	83
	300	141	77	63	60	57	55
	400	106	58	48	45	43	41
92mm x 0.55BMT	200	156	85	70	66	63	61
	300	104	57	47	44	42	40
	400	78	43	35	33	32	30
92mm x 0.75BMT	200	213	116	96	90	86	83
	300	142	78	64	60	57	55
	400	106	58	48	45	43	41
92mm x 1.15BMT	200	326	179	147	137	132	127
	300	218	119	98	92	88	85
	400	163	89	73	69	66	63

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Table 90

MAXIMUM ALLOWABLE SHELF LOADS- WALL HEIGHT 6000mm							
WALL HEIGHT - 6000mm		NUMBER OF SHELVES SPACED EQUALLY OVER FULL HEIGHT					
STUD SIZE	SHELF WIDTH mm	1	2	3	4	5	6
		MAXIMUM ALLOWABLE SHELF LOAD IN kg PER METRE RUN OF SHELF					
92mm x 1.15BMT	200	261	143	117	110	106	102
	300	174	95	78	73	71	68
	400	131	71	59	55	53	51
150mm x 0.75BMT	200	450	250	167	125	100	83
	300	298	196	161	120	95	83
	400	232	147	121	113	90	80
150mm x 1.15BMT	200	650	400	370	346	320	267
	300	475	300	246	231	222	213
	400	368	225	185	173	167	160

Design Parameters and Assumptions

Preparation of the Shelf load Tables have been based on the following assumptions.

1. Max Stud Spacing - 600mm.
2. Top and bottom wall tracks are mechanically fixed to floor and ceiling framing.
3. Studs are mechanically fixed to top and bottom wall tracks.
4. Studs and track sections are manufactured by Studco Building Systems.
5. Shelves are evenly distributed over 2/3 the wall height.
6. The tables are applicable to shelves on one side of the wall.
7. Studco takes no responsibility for the shelf design or the attachment methods unless specifically requested to carry out checks on particular systems.
8. The tables have been designed for a deflection limit of wall height/480.
9. Wall studs are clad both sides with 13mm plasterboard or thicker.
10. Noggings are provided in accordance with minimum requirements as specified for wall construction.
11. Studs are to be continuous, not spliced.

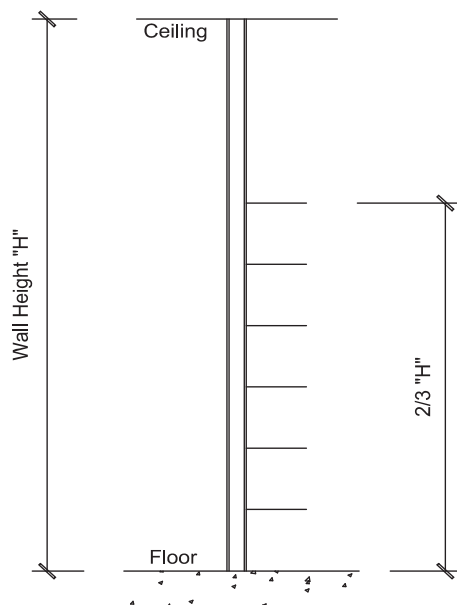


Fig. 1 Shelf Distribution Detail

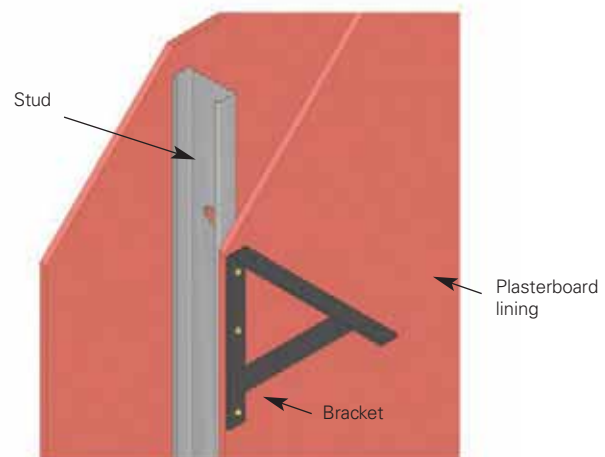


Fig. 2 Bracket Fixing to Stud Wall.

Consult Studco Engineer for project specifications.