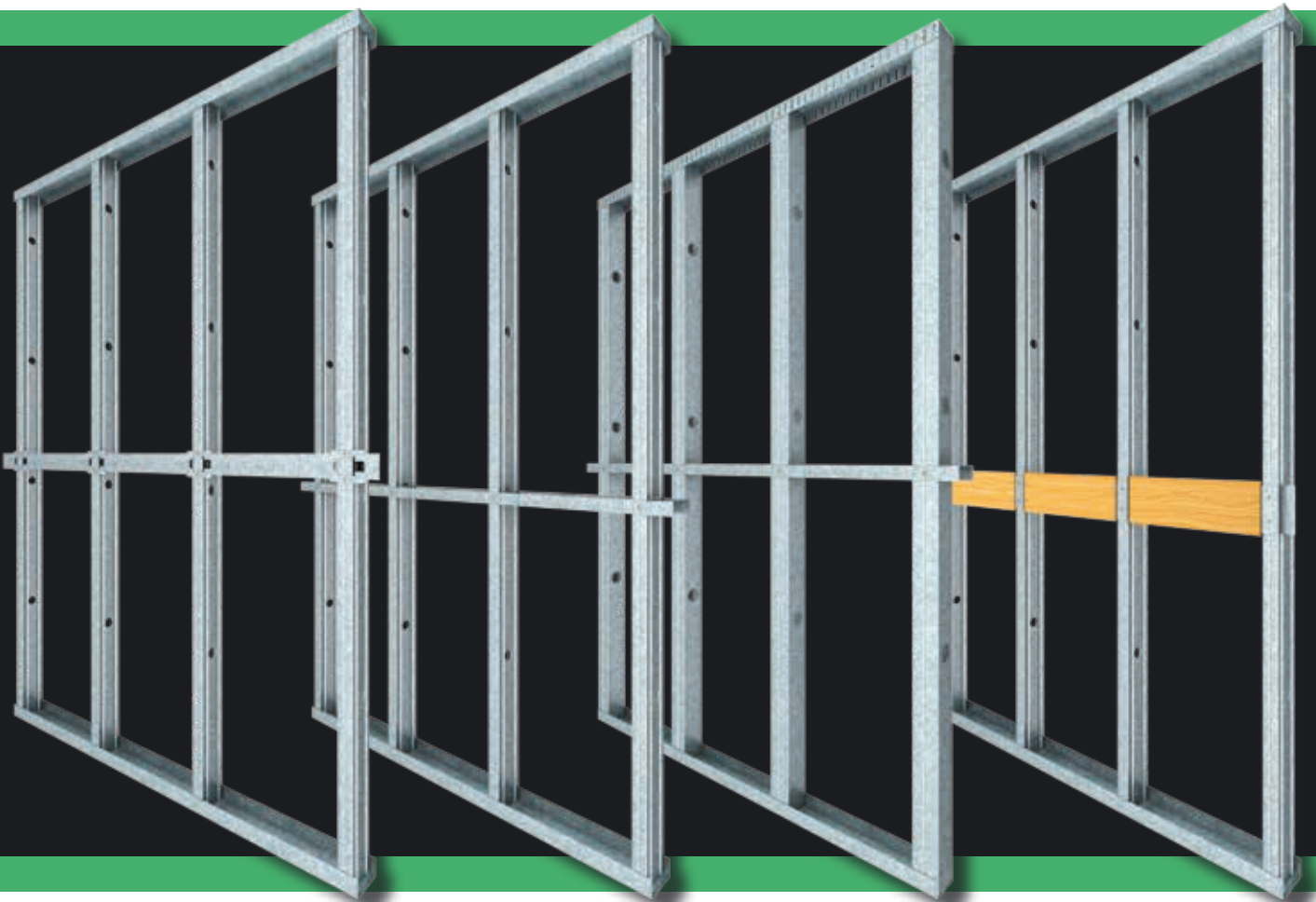


RONDO
NOGGING
Systems



STUD & TRACK
WALL FRAMING:
NEW ZEALAND

MARCH 2018

RONDO[®]

WHY CHOOSE RONDO NOGGING SYSTEMS?

INTRODUCTION

When it comes to selecting a Nogging for your internal or external wall framing, you'll find one suitable in the Rondo range – with the greatest amount of Nogging solutions available in the market and each of them having been designed to suit a specific application.

Whether you're looking for Noggings that can be fitted during or after the installation of Wall Studs, the Rondo range gives you options for both.

A popular choice is the continuous Nogging Track that can be fitted to the Stud framing in one length, or individual Noggings can be cut from the Track. The Rondo Nogging Track is produced in 0.70bmt to suit all Studs sizes, except for 150mm Studs which is produced in 0.75bmt for additional support.

In situations where a back to back stud set out is required, or our innovative MAXIjamb® or DUPLEX Stud® is being used, the Double-Punched Nogging Track will do the job. It's like the standard Nogging Track, however it has a bigger punch out to fit the wider Stud arrangement. Its introduction has been well received as it replaces the need to cut and notch Standard Nogging Track and therefore reduces time spent on site.

Where ply or timber Noggings are required, such as for the support of heavy cupboards and flat screen TVs the Rondo Continuous Nogging Bracket can be used.

The latest addition to the Rondo range of Noggings is the FAST-FIX Nogging® which can be fixed after the Stud and Track Framing has been installed, making installations quicker and resulting in labour cost savings.

The FAST-FIX Nogging® suits any Stud size and all typical stud applications, whether it's single, boxed, back to back and staggered stud configurations, it'll do the job well. It can also be used with both the Rondo MAXIjamb® and DUPLEX Stud® profiles. FAST-FIX is processed to suit 300, 400, 450 and 600mm Stud centres.

SUITABLE FOR

- Installation whilst framing is being installed:
Single & Double Punched Nogging Track.
- Installation after framing has been completed:
Continuous Nogging Bracket, FAST-FIX Noggings.
- Providing rotational stiffening to wall framing.
- Assisting in keeping wall studs parallel and square to one another avoiding potential for lipping of lining board at joints.
- Opportunities for providing additional axial capacity for internal load bearing walls by Rondo Engineer Design.
- Retro-fitting of Noggings is simpler, using FAST-FIX Noggings – just cut out narrow strip of lining board on one side and fix Nogging.

SPECIAL FEATURES

- Manufactured from Bluescope G2 steel with Z275 coating.
- All Noggings designed and tested to suit all Rondo Steel Stud & Track Systems both internal and external.
- Designed to meet and often exceed all relevant Building Codes and Standards.
- Lightweight FAST-FIX Noggings are supplied in boxes to make handling simpler, safer and more secure and to reduce wastage due to damage.
- FAST-FIX Nogging® offers two installation methods: face fixed or using braced 'bend-out' tabs for screwing to stud webs.

IMPORTANT NOTE:

Rondo recommends its products and systems are installed by a qualified tradesperson and according to the relevant codes and standards.

Rondo recommends that before acting on any advice or opinion in this manual, you should seek professional advice in light of your own architectural and building requirements.

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RONDO NOGGING SYSTEM COMPONENTS

FAST-FIX NOGGING

222	FAST-FIX Nogging to suit 300 centres
222	FAST-FIX Nogging to suit 400 centres
222	FAST-FIX Nogging to suit 450 centres
222	FAST-FIX Nogging to suit 600 centres

NOGGING TRACK – 450 & 600mm CENTRES

503	51mm x 0.70bmt Nogging Track
504	64mm x 0.70bmt Nogging Track
505	76mm x 0.70bmt Nogging Track
506	92mm x 0.70bmt Nogging Track
507	150mm x 0.75bmt Nogging Track

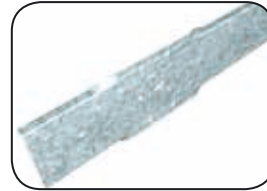
DOUBLE-PUNCHED NOGGING TRACK – 300, 400, 450 & 600mm CENTRES

214	64mm x 0.70bmt Double Punched Nogging Track
215	76mm x 0.70bmt Double Punched Nogging Track
216	92mm x 0.70bmt Double Punched Nogging Track
217	150mm x 0.70bmt Double Punched Nogging Track

CONTINUOUS NOGGING BRACKET

501	Continuous Nogging Bracket
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FAST-FIX NOGGING



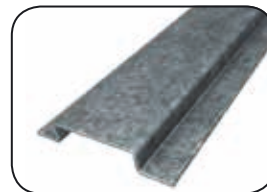
NOGGING TRACK



DOUBLE-PUNCHED NOGGING TRACK



CONTINUOUS NOGGING BRACKET



NOGGING REQUIREMENTS

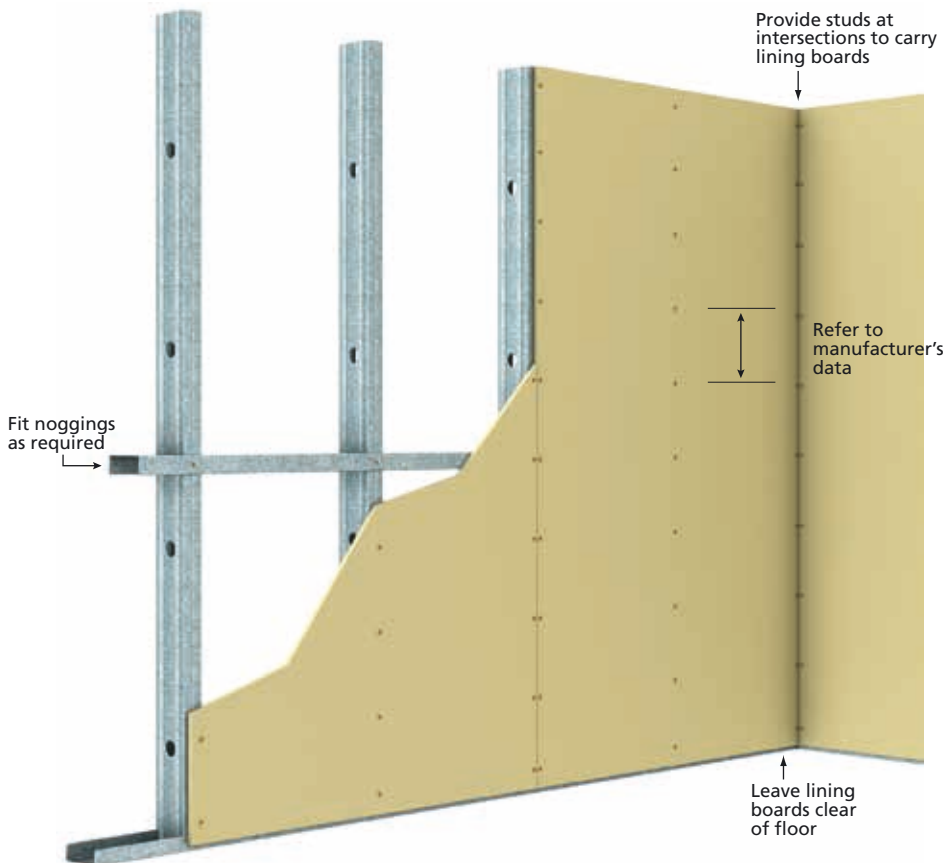
Nogging requirements for standard Rondo Steel Studs are the same for all Nogging solutions including the new FAST-FIX Nogging®, as detailed in Table 1 below.

For Rondo DUPLEX Stud® Nogging requirements, refer to page 10 as this innovative product offers greater wall heights before Noggings are required.

TABLE 1: MINIMUM NUMBER OF NOGGINGS

WALL HEIGHT (m)	LINING CONDITION	NUMBER OF NOGGINGS
0 – 4.4	Both sides	0
4.4 – 8.8		1
0 – 3.0	Lined one side	1
3.0 – 6.0		2
6.0 – 8.0		3
8.0+		4

NOTE: 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 unlined, or lined one side only.



NOTE: Head and base track specific installation details should be checked with the Rondo Professional Design Manual and/or the lining board manufacturer's published data.

■ STEEL STUD & TRACK WALL FRAMING SYSTEM: LINED ONE SIDE

RONDO FAST-FIX NOGGING

Rondo Wall Stud

The Rondo FAST-FIX Nogging® is suitable for any size typical steel wall stud whether single, boxed, back to back or as a staggered stud configuration as well as the Rondo MAXIjamb and Rondo DUPLEX Stud® profiles. The only variable is the locating punch out which is ordered to suit your stud centres and is available in 300, 400, 450 and 600mm stud centres.

The Rondo FAST-FIX Nogging® is manufactured from 0.70bmt G2 Z275 steel the same as Rondo's standard Nogging tracks so that when secured with #8 wafer head or lost head screws the potential for 'bulging' once the board is installed is minimised.



1 STANDARD INTERNAL WALL STUD FRAMING WITH FAST-FIX NOGGING INSTALLED

Installation

The primary method of securing the FAST-FIX Nogging® is by using the bend out tab as shown in Figures 2, 3 & 5 and by securing the face element of the Nogging to the stud flange with two screws via the holes provided (Figure 2).

In some applications, the tab need not be used, however two screws are required through the face as shown in Figure 4. *(Check the limitations of this application as per the table on Page 5.)*

The main part of the bend out tab should be bent to 90°, the second 'long' bracing tab then bent at 45° with the end cranked to 90° so that its slot lines up with the main tab hole before being screwed off into the web of the stud.

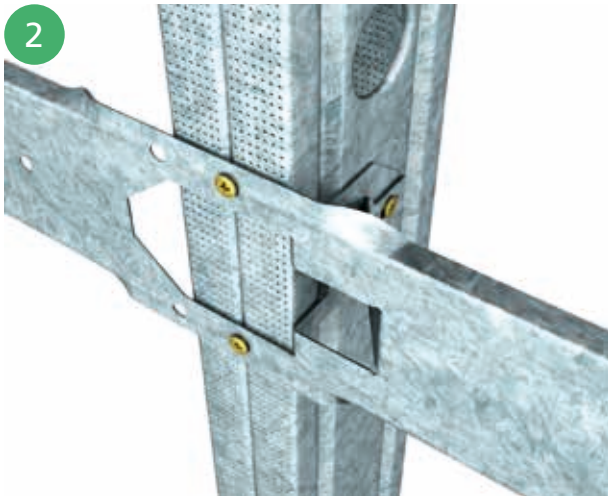
To minimise cost, the Rondo FAST-FIX Nogging® is supplied in one standard length of 1960mm to make 'one-person' installation practical.

The 'overhang' at each end once fixed will, in the case of the 300, 450 & 600 sizes, be just 80mm from the centre of the end studs and with the 400 size, 180mm.

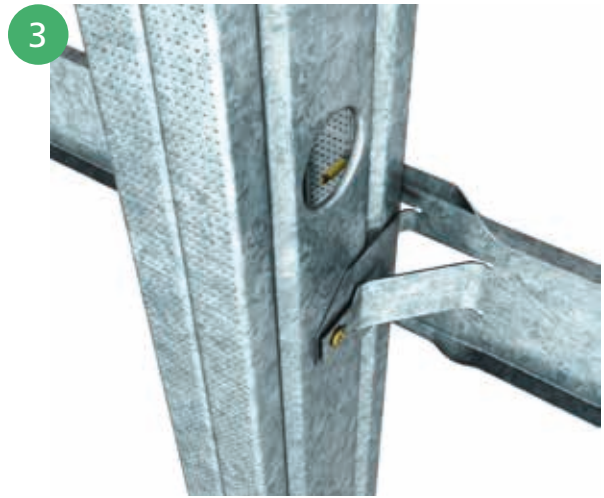
The overhanging ends of the Nogging can be either simply snipped off flush with the studs or bent back into the wall void, if required.

The FAST-FIX Nogging® can be used with the Rondo acoustic QUIET STUD®, both the 0.55 & 0.75bmt versions, without compromising the acoustic performance of the system.

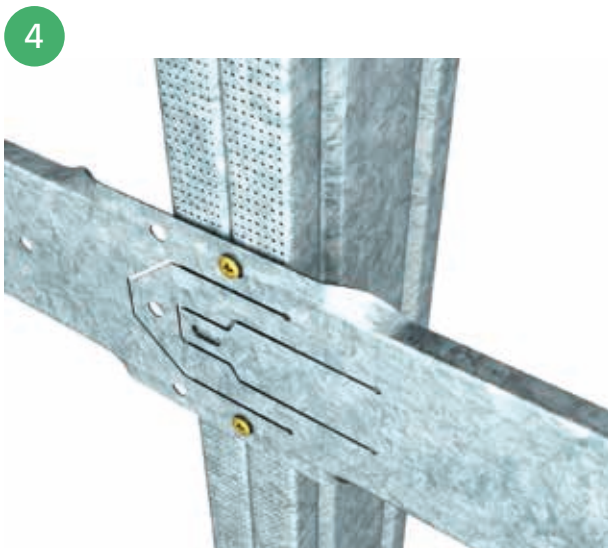
It is important that the Nogging only be installed to the side of the stud with the wider web element and the tab must only be secured to that wider face as shown in Figure 5.



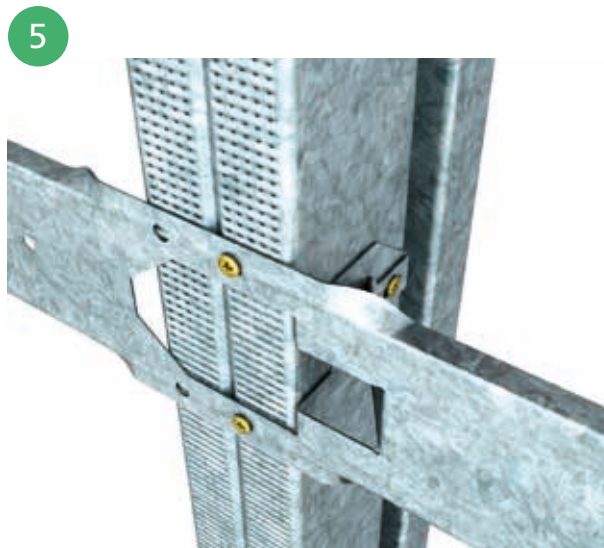
■ FAST-FIX NOGGING INSTALLED INTO RONDO STEEL STUD USING TAB/FACE FIX x 3 SCREWS METHOD (FRONT VIEW)



■ BACK VIEW OF TAB/FACE FIX x 3 SCREWS INSTALLATION METHOD



■ FAST-FIX NOGGING INSTALLED INTO RONDO STEEL STUD USING FACE-FIX x 2 SCREWS METHOD



■ FAST-FIX NOGGING INSTALLED INTO RONDO QUIET STUD®
NOTE: Ensure Rondo QUIET STUD® is installed in the correct orientation to ensure the FAST-FIX Nogging is only fitted to the wide web element.

FAST-FIX NOGGING RECOMMENDED FIXING METHODS

WALL TYPE	TAB/ FACE-FIX x 3 SCREWS	FACE-FIX x 2 SCREWS	REFERENCE
LINED BOTH SIDES: FULL HEIGHT (all stud types)	✓	✓	Figs 2, 3 & 4 on Page 5 Fig 6 on Page 6
LINED ONE SIDE: FULL HEIGHT* (all stud types)	✓	✓	Figs 2, 3 & 4 on Page 5 Figs 7, 7A on Page 6 Fig 9 on Page 7
PARTIALLY LINED BOTH SIDES (all stud types)	✓	✗	Figs 2 & 3 on Page 5 Fig 9 on Page 6
STAGGERED STUD WALLS	✓	✗	Figs 2 & 3 on Page 5 Figs 13 & 14 on Page 9
QUIET STUD WALLS	✓	✗	Figs 2, 3 & 5 on Page 5 Fig 10 on Page 7

* As noted in the text it is better, if practical, to install the FAST-FIX Nogging to the unlined side of the wall using the bend out tab.

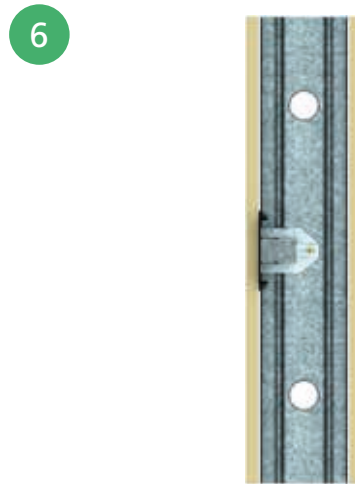
RONDO FAST-FIX NOGGING (continued)

When to use the Bend-Out Two-Piece Tab

WALLS LINED BOTH SIDES TO FULL HEIGHT

For walls lined both sides, full height, FAST-FIX Noggings are required to be installed as per Table 1 on Page 3.

The FAST-FIX Nogging® can be fixed through either its face or by utilising the tab as shown in Figures 2 & 4, with #8 wafer head screws and can be installed either side. It is not necessary to use the product on both sides of the stud framing in this application. (Refer Figure 6).

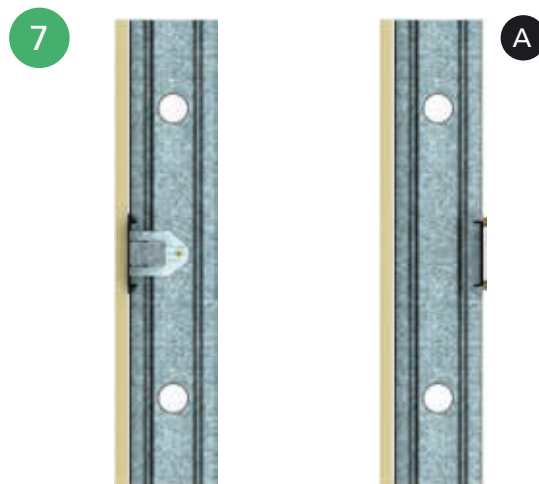


■ DETAIL SHOWING WALLS LINED BOTH SIDES TO FULL HEIGHT

WALLS LINED ONE SIDE TO FULL HEIGHT - including unbridged Chase Walls

Similarly, after ascertaining the Nogging requirements from Table 1, the FAST-FIX Nogging® can be installed either side of the stud by utilising the tab as shown in Figures 2 & 3. The most effective side being that opposite the lining *if accessible*. The face-fix x 2 screw method can be used, but the Nogging must be installed on the unlined wall side in this application. (Refer Figure 7A).

NOTE: In addition to the above Nogging requirements, install a Nogging 100mm below the head track.



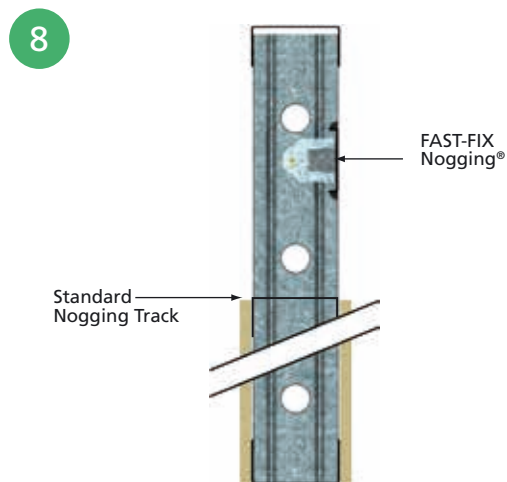
■ DETAIL SHOWING WALLS LINED ONE SIDE TO FULL HEIGHT

WALLS PARTIALLY LINED BOTH SIDES

ie: not lined in ceiling void

Normally these walls will require a Nogging at the mid-point of the unlined section and an additional Nogging 100mm from the head track. In these instances the two-piece tab should be used.

Referring to the instructions on the use of the tab on Page 5 and to Figures 2 & 3, the FAST-FIX Nogging® can be installed either side. It is not necessary to fit the Nogging on both sides of the stud framing. (Refer Figure 8).



■ DETAIL SHOWING WALLS PARTIALLY LINED BOTH SIDES

WALLS LINED ONE SIDE TO EITHER SHEAR WALLS OR OBSTRUCTIONS

In this instance it is recommended that the FAST-FIX Nogging® is fixed using the two-piece tab as previously described for walls lined one side.

Once again, fixing the FAST-FIX Nogging® to the rear of the stud is the most effective, if access is possible and only by using the tab.

(Refer Figure 9).

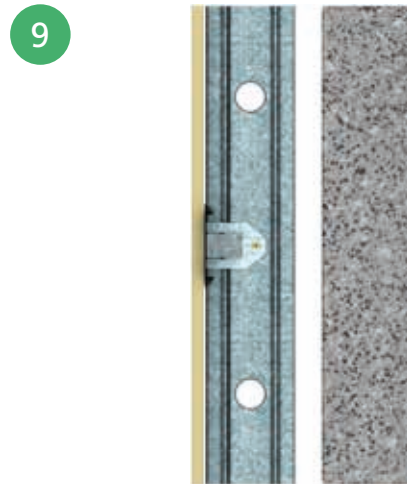
QUIET STUD WALLS® LINED BOTH SIDES

The FAST-FIX Nogging® can only be installed into a QUIET STUD® wall using the tab and 3 screws method.

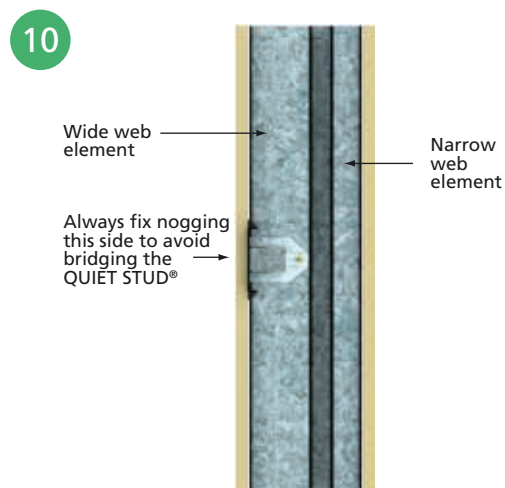
It is also imperative that the Nogging is only installed onto the side of the stud adjacent to the widest element of the web to prevent potential bridging of the QUIET STUD®. (Refer Figure 10).

NOTE: It has been mentioned above that with walls lined one side only the most effective side to install the FAST-FIX Nogging® is to the back or unlined side of the stud — WHY?

- Prevents “bulging” of wall linings at Nogging locations.
- Higher levels of finish are possible.
- Provides greater rotational restraint to unlined stud, increasing the stud capacity.



■ DETAIL SHOWING WALLS LINED ONE SIDE TO SHEAR WALLS OR OBSTRUCTIONS



■ DETAIL SHOWING QUIET STUD® WALLS LINED BOTH SIDES

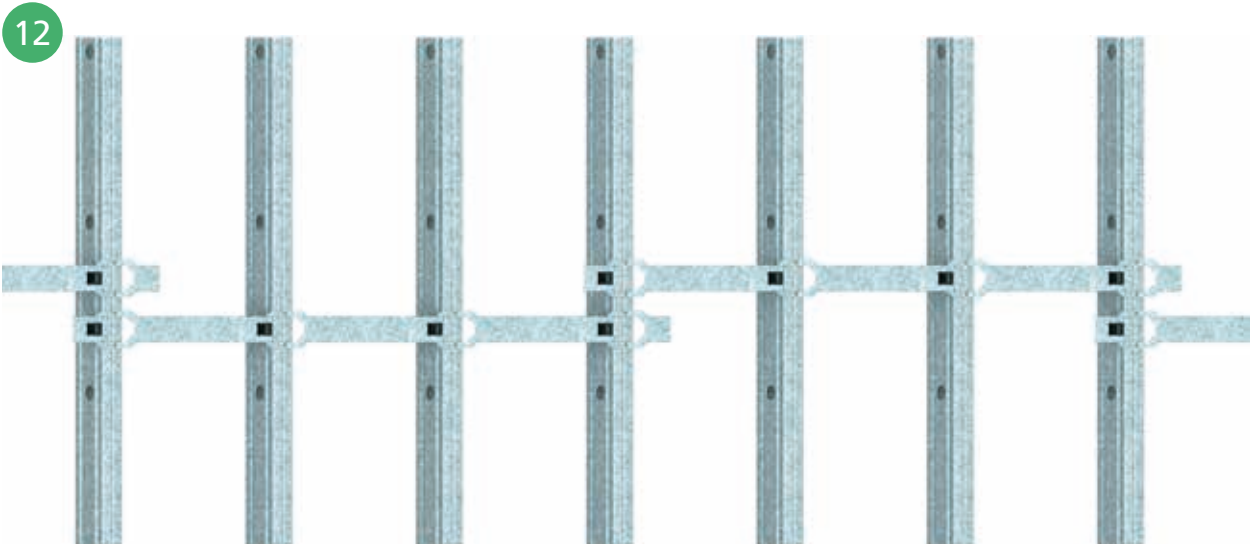
RONDO FAST-FIX NOGGING (continued)

Stud Layout Configurations

The FAST-FIX Nogging® is not designed to be spliced and we therefore suggest one of the following nogging set outs are used.



■ FAST-FIX NOGGING CONTINUOUS INSTALLATION, NO NECESSITY TO SPLICE JOIN



■ FAST-FIX NOGGING CONTINUOUS INSTALLATION

Rondo Staggered Stud

A staggered stud wall is simply two adjacent stud walls lined one side only but sharing the same top and bottom tracks. Traditionally, 64mm studs are installed within 92mm tracks, (see *Figure 13*) providing a form of acoustic wall treatment.

It is **not** deemed to be a discontinuous construction as required by the NCC.

In this application, the FAST-FIX Nogging® is installed using the two-piece tab method as previously described to provide added stability to this wall system.

Walls lined one side should always include at least one central Nogging to ensure the studs are square to one another therefore avoiding board lipping at their joints.

Because the studs 'overlap' each other (see *Figure 14*), it is not possible to install standard Rondo Nogging Tracks and maximum wall heights are reduced accordingly.

With the FAST-FIX Nogging® the problem is solved, and the Rondo Maximum Wall Height tables for steel stud walls lined one side may be used when the FAST-FIX Nogging® is installed in accordance with the requirements of Table 1 and the details shown here.



■ STAGGERED STUD FRAMING WITH FAST-FIX NOGGING

14



■ PLAN VIEW OF STAGGERED STUD FRAMING WITH FAST-FIX NOGGING INSTALLED BOTH SIDES

RONDO DUPLEX STUD®

The Rondo DUPLEX Stud® can be used as a wall stud where the use of standard steel studs would require installation at closer centres.

In this application, our DUPLEX Stud® provides additional load capacity and reduces not only the material cost but labour cost as well.

The Rondo DUPLEX Stud® can be used with the FAST-FIX Nogging® using the tab and 3 screw method as shown in Figure 15.

Nogging requirements for DUPLEX are different to those for standard Steel Studs and details are provided in Table 2 below.

15



■ RONDO FAST-FIX NOGGING

TABLE 2: DUPLEX STUD NOGGING REQUIREMENTS

WALL HEIGHT (m)	LINING CONDITION	NUMBER OF NOGGINGS
0 – 6.0	Both sides	0
6.0 – 8.8		1
0 – 4.0	Lined one side	1
4.0 – 8.0		2
8.0+		3

NOTE: 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 unlined, or lined one side only.

RONDO NOGGING TRACK

STANDARD STUD & TRACK WALLS

The original Rondo Nogging Track is designed to provide lateral stiffening support to the wall studs and prevent twisting of the studs which can present lipping problems at the joints of the lining board.

The Rondo Nogging Track is a continuous section (see *Figure 16*) which can be fitted to the stud framing in one length or cut into individual Noggings.

The Nogging Track, in its continuous length, is installed whilst the studs are being 'stood' in place with the Nogging track being laid over the floor track first and the studs located in the cut outs and the Nogging lifted into place before screw fixing to both stud flanges at the required position.

The Nogging track is produced in 0.70bmt steel in stud sizes of 51, 64, 76 & 92mm and for the 150mm stud size from 0.75bmt steel.

Noggings of 0.70bmt have been designed and approved for use with 1.15bmt studs.

Where services are to be fitted and a recessed Nogging is required, this may be cut from stud or track.

Heavy fixtures may be fitted to the wall framing by fabricating custom Noggings (see *Continuous Nogging Bracket on Page 14*).

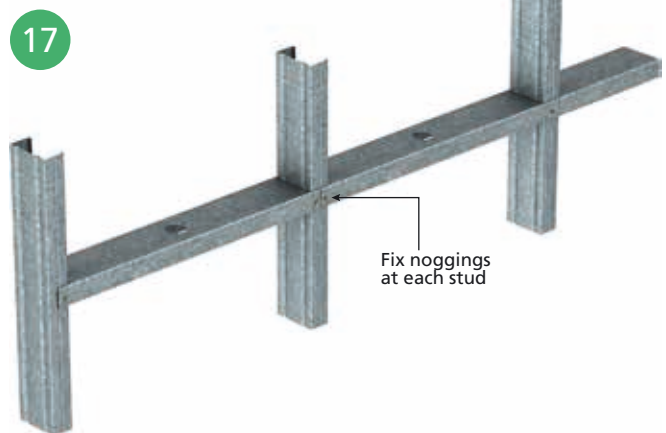
The minimum number of Noggings required may be determined from Table 1, however it should be noted that in some instances a more economical design may be achieved using more Noggings.



16

Individual noggings may be cut from continuous lengths

■ CONTINUOUS NOGGING TRACK



17

Fix noggings at each stud

■ NOGGING IN RONDO STUD & TRACK

RONDO NOGGING TRACK (continued)

NOGGING TRACKS AND MAXIFRAME

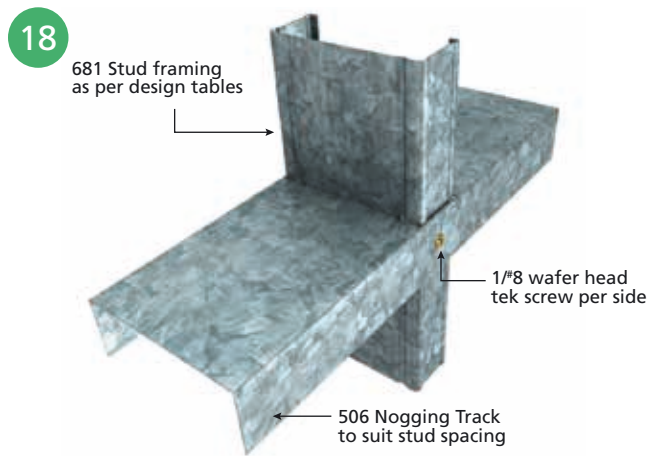
Table 3 is applicable for internal MAXIframe® partitioning subjected to 0.375kPa service load when installed using the Rondo Slotted Deflection Head Track.

Additional wall Noggings may be required in walls subject to elevated pressure.

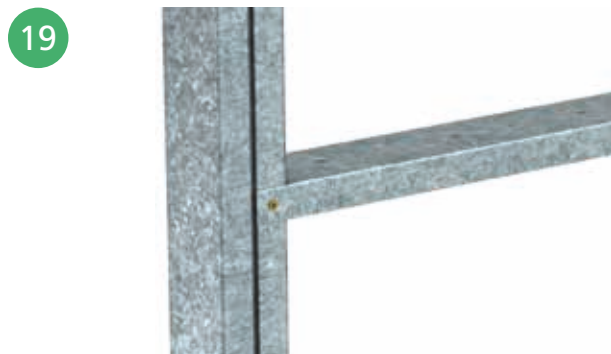
Figures 18 & 19 show installation of Nogging Track when used in conjunction with the MAXIframe® Heavy Duty Framing System.

TABLE 3: MAXIFRAME NOGGING REQUIREMENTS

WALL HEIGHT (m)	NOGGINGS REQUIRED
up to 3.0	1 row mid height
up to 3.2	2 rows equispaced



■ NOGGING USED IN MAXIFRAME



■ NOGGING TRACK FIXING DETAIL AT MAXIJAMB

DOUBLE PUNCHED NOGGING TRACK

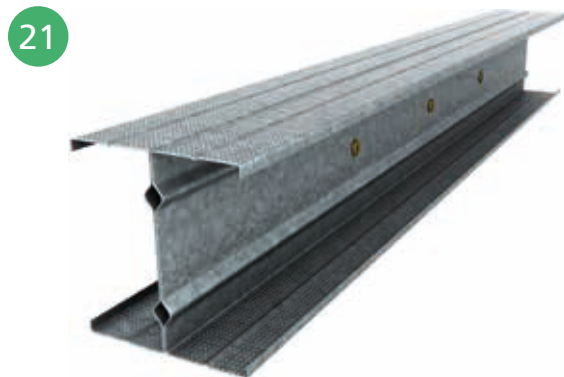
The Rondo Double Punched Nogging Track (Figure 20) is the standard continuous Nogging track with wider punched-out holes for back-to-back studs such as when studs cannot be boxed (see Figure 21).

The same product is also suitable for both our MAXIjamb (Figure 22) and NEW DUPLEX Stud® (Figure 23).

Installation is the same as for the standard single Nogging track.



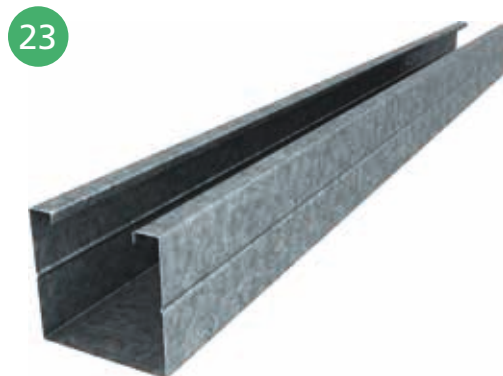
■ DOUBLE PUNCHED NOGGING



■ BACK-TO-BACK STUDS



■ RONDO MAXIJAMB®



■ RONDO DUPLEX STUD®

CONTINUOUS NOGGING BRACKET AND TIMBER NOGGINGS

Timber or plywood Noggings are often installed in a steel stud wall to provide support for a variety of additional fittings, such as heavy cupboards, hand rails, flat screen television units etc. Rondo offers a choice of methods to install these Noggings.

Noggings can be fixed between the stud webs and notched out at one end to fit (see *Figure 24 A & B*). Either screw fixed through the web of the stud (A), or with the addition of a 35 x 35 x 0.70 Rondo steel angle, and similarly, fixed to the stud web if additional support is required (B).

Rondo 501 Continuous Nogging Bracket can also be used, which removes the need to notch timber Noggings around the stud flange or sourcing already notched out and cut to size Noggings.

The Nogging bracket is supplied in 2400mm lengths to accommodate a variety of Nogging widths and can be cut to size on site. To install, the bracket is first screw fixed to the face of the stud and then the Nogging can be screw fixed to the bracket outstand (see *Figure 25 A & B*).

The Nogging bracket is sized to suit the use of 17mm plywood, therefore ensuring a flush finish with the face of the stud. Plywood Noggings can be simply cut on site to suit the requirements.

It should be noted that plywood thickness tolerances can vary depending on the manufacturer. Remember, CCA treated timber should *never* be used with Rondo steel stud systems.

Reference should be made to a Rondo representative if unsure of the appropriate Nogging to use due to the weight of the fixtures to be supported.



■ TIMBER NOGGINGS NOTCHED TO FIT BETWEEN STUD WEBS



■ TIMBER NOGGINGS FITTED USING RONDO CONTINUOUS NOGGING BRACKET

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