

4.5 SRP™ TRACK INSTALLATION

Choose the relevant SRP™ Stud and SRP™ Track size and BMT using the SRP™ Stud Height Tables, [TABLES 6.1 – 6.5], bearing in mind that for all applications the SRP™ Track BMT must be the same or greater than the SRP™ Stud BMT.

- » For Fire Rated Walls, the use of deflection head SRP™ Track with a minimum of 50mm leg length is required. Installation as per GIB® Fire Rated Wall Systems October 2012.
- » For other walls, including SRP™ Whisperwall™ use the minimum of 30mm leg length SRP™ Track.

Ensure all SRP™ Tracks are level [horizontal], aligned and adjoining SRP™ Tracks are butt jointed with a 2mm expansion gap between them allowing for substrate expansion/shrinkage [see FIGURE 7].

Ensure that all SRP™ Tracks [top and bottom] will remain dry in service and are not subject to water ingress. As per the New Zealand Steel Durability Statement, when in contact with concrete ensure a damp-proof course [DPC] is used as required, which is to be at least 10mm wider than the SRP™ Track, i.e. minimum 5mm either side of the SRP™ Track [see FIGURE 7].

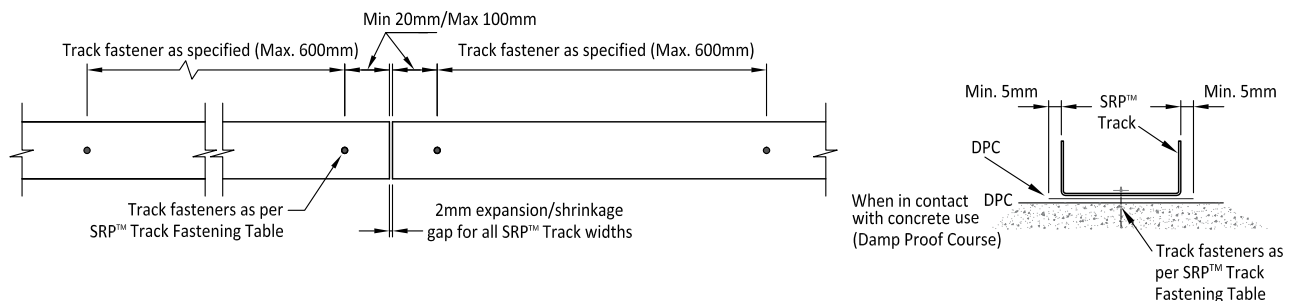
Secure the appropriate SRP™ Track to the floor and ceiling by using approved relevant fastener type for the particular substrate. See TABLES 6.1 – 6.5 for more information. Aluminium fasteners are not permitted as SRP™ Track fastenings in fire rated partitions.

To ensure no loss of structural integrity of the floor, where SRP™ Tracks are to be installed around pre-stressed concrete elements, installation is to be in strict accordance with pre-stressed component manufacturer requirements.

Secure the SRP™ Track to the structural floor and ceiling using fasteners at maximum 600mm centres and within 100mm but not less than 20mm from the end of the SRP™ Track, doorway openings and intersecting or exterior wall connections. See TABLE 7, FIGURE 7, FIGURE 18 and FIGURE 19 for more information.

Installation of SRP™ Whisperwall™ and other acoustic performance walls are to be installed in accordance with GIB® Noise Control Systems March 2006 and relevant sections of the SRP™ Product Catalogue.

FIGURE 7 SRP™ Track installation detail



Single Ramset™ Standard Drive Pin LDU 25 or M8 Ramset™ DynaBolt™ Option

If using Double Ramset™ Standard Drive Pin LDU 25 or M8 Ramset™ DynaBolt™ Option for Construction purposes, use the below details:

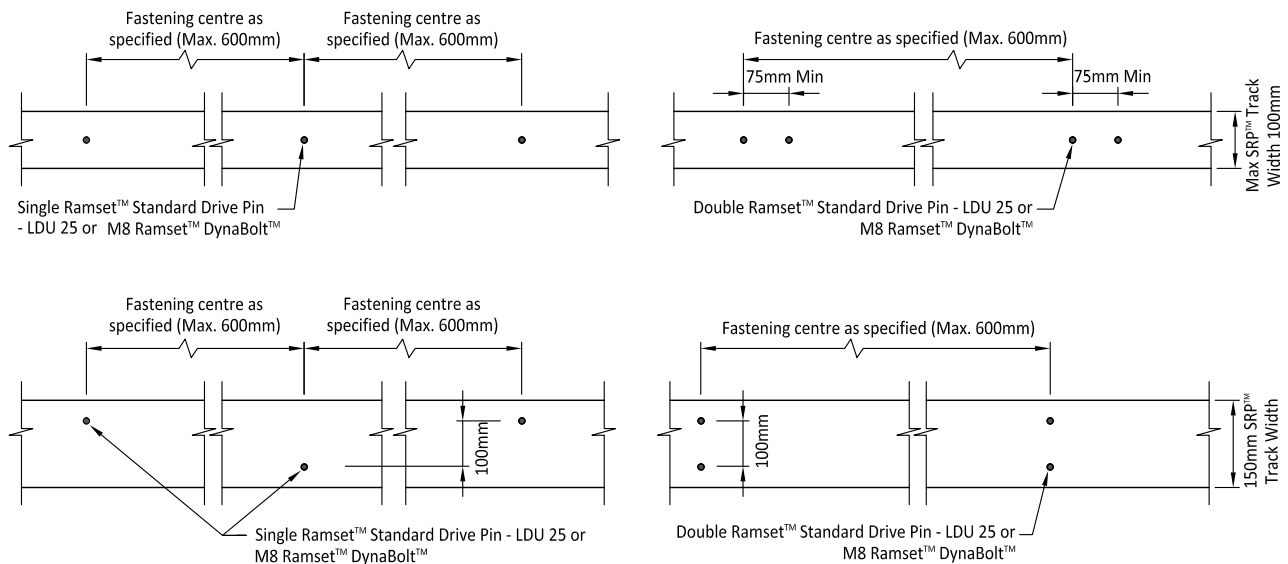


TABLE 7

SRP™ STUD HEIGHT 4M MAX. OR THE RELEVANT MAXIMUM HEIGHT FROM SRP™ STUD HEIGHT TABLE WHICHEVER IS LESSER	
All Standard SRP™ Stud Sizes [BMT Single and Boxed @ 300, 400, 450 and 600mm Stud centres] SRP™ Whisperwall™ Stud @ 600mm Stud centres only	
A	Low Wind Zone Wind Speed [m/s] - [Vr<32]
A	Medium Wind Zone Wind Speed [m/s] - [32<Vr<37]
A	High Wind Zone Wind Speed [m/s] - [37<Vr<44]
B	Very High Wind Zone Wind Speed [m/s] - [44<Vr<50]
B	Extra High Wind Zone - Wind Speed [m/s] - [50<Vr<55]

NOTES:

- * Table adopts 4m max. height or the relevant maximum height from SRP™ Stud Height Table, whichever is lesser
- ** Fastener spacing @ 600mm maximum
- *** Specific Engineering Design required for Vr>55 m/s

SRP™ TRACK FASTENING OPTIONS					
Code	Fastening Description	Number of Fastening	Centre of Fastening [mm]	Minimum Fastener Spacing [mm]	Equivalent Fastening Capacity @ 600 centres [kN]
A	Ramset™ Premium Drive Pin 22mm	1*	600	75	1.75
B	Ramset™ Premium Drive Pin 22mm	1*	300	75	3.5
C	M8 Ramset™ DynaBolt™	1	600	100	5
D	M8 Ramset™ DynaBolt™	1	300	100	10

NOTES:

- * For pinned fastening, SRP™ recommends doubling the pins for construction purposes. Fasten double pins along the Track centreline and side by side for 150mm Tracks, with the above minimum fastener spacing centres, [see FIGURE 7].
- For 150mm Tracks and for all fastening options, stagger the fasteners 50mm above/below along the centreline of the Track, [see FIGURE 7].
- Fastening capacity, minimum fastener spacing and installation in strict accordance with Ramset™ product specifications
- Alternative fastening subject to meeting the equivalent fastening capacity indicated above, to be approved by a structural engineer
- Fastening capacity dependent on substrate material – if unsure contact a structural engineer
- For fastening to prestressed elements, care should be taken not to interfere with any prestressing strands – contact the prestressing unit manufacturer to determine locations of fastening to avoid clashes
- Minimum concrete edge distance of 75mm or in accordance with manufacturer requirements for both Ramset™ Premium Drive Pin and Ramset™ M8 DynaBolt™
- Check minimum concrete thickness when specifying anchor depths [Ramset™ Premium Drive Pin – min. thickness 3xPin length, Ramset™ M8 DynaBolt™ DP10040 – min. thickness 70mm [note longer DynaBolts™ may require greater thickness – refer to Ramset™ product specification]
- Additional fastening to those indicated in [TABLE 7] may be required around doors and openings, see [DOORS AND OPENINGS SECTION] of the SRP™ Product Catalogue, or as specified otherwise
- All fastening details noted in [TABLE 7] are minimum requirements only. For alternative design please consult a structural engineer.



SRP™ STUD HEIGHT USING THE RELEVANT MAXIMUM HEIGHT FROM SRP™ STUD HEIGHT TABLE																															
Wind Zone	Wind Speed [m/s]	Stud Size	50.8				63.5				75				89				92				WW 92	100				150			
			BMT	0.50	0.55	0.50	0.55	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15	0.55	0.75	1.15				
Low Wind Zone	Single Stud Centres	300	A																				-	A				B			
		400	A																				-	A				B			
		450	A																				-	A				B			
		600	A																				-	A				B			
	Boxed Stud Centres	300	A										B		B				B				-	B							
		400	A										B		B				B				-	B							
		450	A										B		B				B				-	B							
		600	A										B		B				B				-	B							
Medium Wind Zone	Single Stud Centres	300	A										B		B				-	B											
		400	A										B		B				-	B											
		450	A										B		B				-	B											
		600	A										B		B				-	B											
	Boxed Stud Centres	300	A										B		B				B				-	C							
		400	A										B		B				B				-	B							
		450	A										B		B				B				-	B							
		600	A										B		B				B				-	A							
High Wind Zone	Single Stud Centres	300	A										B		B				-	C											
		400	A										B		B				-	B											
		450	A										B		B				-	B											
		600	A										B		B				-	A											
	Boxed Stud Centres	300	A										B		B				B				-	C							
		400	A										B		B				B				-	C							
		450	A										B		B				B				-	C							
		600	A										B		B				B				-	C							
Very High Wind Zone	Single Stud Centres	300	A										B		B				-	C											
		400	A										B		B				-	C											
		450	A										B		B				-	C											
		600	A										B		B				-	C											
	Boxed Stud Centres	300	A										B		B				B				-	C							
		400	A										B		B				B				-	C							
		450	A										B		B				B				-	C							
		600	A										B		B				B				-	C							
Extra High Wind Zone	Single Stud Centres	300	A										B		B				-	D											
		400	A										B		B				-	C											
		450	A										B		B				-	C											
		600	A										B		B				-	C											
	Boxed Stud Centres	300	A										B		B				B				-	D							
		400	A										B		B				B				-	C							
		450	A										B		B				B				-	C							
		600	A										B		B				B				-	C							

NOTES: * Table adopts the relevant maximum height from SRP™ Stud Height Table
 ** Fastener spacing @ 600mm maximum
 *** Specific Engineering Design required for Vr>55 m/s

4.6 STUD INSTALLATION

To enable easy installation, SRP™ Studs are equipped with a generously knurled face providing a secure surface for attaching high density wall board products [FIGURE 1 and FIGURE 2].

Ensure Standard SRP™ Stud centres are as per SRP™ Stud Height Tables, [TABLES 6.1 – 6.5]. SRP™ Whisperwall™ Studs are installed exactly at 600mm centres, except end of the wall, doorway openings and intersecting or exterior wall connections. In all above cases SRP™ Stud centres should be no more than 600mm centres apart [see FIGURE 3, FIGURE 18 and FIGURE 19].

Ensure all SRP™ Studs are plumb [vertical], facing the same direction, [FIGURE 3], and the perimeter SRP™ Studs' webs [width, flat back side] are against the connecting wall, opening or free wall ends [FIGURE 18 and FIGURE 19]. This will enable adequate bracing, flat joint surfaces and accessible utility runs to be achieved.

Ensure that all SRP™ Studs remain dry in service and are not subject to water ingress. As per the New Zealand Steel Durability Statement, when in contact with concrete, or when there is the potential of condensation or water ingress through the wall, a damp-proof course [DPC] is used as required, which is to be at least 10mm wider than the SRP™ Stud, i.e. minimum 5mm either side of the SRP™ Stud [see FIGURE 7].

For standard partitions the expansion/contraction gap is 10mm between the top of the SRP™ Studs and the underside of the head SRP™ Track [see FIGURE 3 and FIGURE 28].

Installation of Fire Rated Walls is as per GIB® Fire Rated Wall Systems October 2012. Amongst other important aspects, this GIB® document, calls for a 15mm gap between the top of the SRP™ Studs and the underside of the SRP™ Deflection Track to allow for expansion and contraction to a maximum of 2700mm high partitions [see FIGURE 3 and FIGURE 29]. Partitions above 2700mm are also available however; a specific structural design will be required. Contact SRP™ for assistance if required.

For other Performance Systems, like acoustic walls e.g. SRP™ Whisperwall™ and standard SRP™ Stud acoustic walls, leave a 15mm expansion gap between the top of the SRP™ Studs and the underside of the head SRP™ Track [see FIGURE 3, FIGURE 29, FIGURE 30 and FIGURE 31].

Installation of SRP™ Whisperwall™ and other acoustic performance walls are as per GIB® Noise Control Systems March 2006 and relevant sections of this document.

To install the SRP™ Stud, insert vertically sideways between top and bottom SRP™ Tracks. Ensure the SRP™

Stud is at the required position, plumb [vertical] and facing the appropriate way. Then rotate the SRP™ Stud until it clicks to set. No further mechanical fastener is required, as the friction fit is sufficient to hold the SRP™ Studs in position subject to the building being enclosed [see FIGURE 2 and FIGURE 3].

For added rigidity of standard [non-fire rated, SRP™ Whisperwall™ or non-acoustic] partitions especially in buildings exposed to higher wind speed; additional mechanical fasteners such as 8g Tek screw and/or Pop rivets or crimping between the SRP™ Stud and top and bottom SRP™ Tracks can also be used to secure the SRP™ Stud ends to the SRP™ Track during installation. Please consult with SRP™ and/or a structural engineer re specific design and the position, centres and type of fastener etc. used.

For fire rated walls no screw fastening to the top or bottom SRP™ Track is allowed. As per GIB® Fire Rated Wall Systems™ October 2012 a light locating fastener that fails at high temperatures, such as single aluminium rivets may be used. Otherwise, positive fastening must be avoided.

For SRP™ Whisperwall™ no fastening to the top or bottom SRP™ Track is allowed, as it would compromise the tested STC values. For other acoustic performance walls refer to GIB® Noise Control Systems March 2006.

Corners, junctions in intersecting walls, walls ends, doors [jambs and heads]/openings especially in High Wind Zone areas or areas with direct to wall/cantilevered loading may require extra rigidity. This can be achieved by using a SRP™ Boxed stud [FIGURE 1]. For SRP™ Whisperwall™, use un-punched SRP™ Studs for boxing or add an extra SRP™ Stud. In other than SRP™ Whisperwall™ applications increase the gauge of the SRP™ Stud or use a timber frame for doors and openings. Alternatively, the area can be stiffened by using single or SRP™ Continuous Nog Tracks. Please consult SRP™ re specific design if required.

A common trade practice is to secure only the bottom of the neighbouring SRP™ Studs of door frames, openings, corners and intersections. Securing the SRP™ Studs to the SRP™ Deflection Tracks, especially around concentrated floor live load, has the possibility of restraining the movement and could cause partition cracking. In these cases refer to **DOORS AND OPENINGS SECTION** of this document and consult with SRP™ and/or a structural engineer re specific design.

For more detailed information about corners and door/openings see the **CORNERS, INTERSECTIONS AND WALL ENDS – TERMINATIONS** Section of this document.