



screw anchor range

part of siniat's wall and
ceiling framing solutions

the finishing touch

Siniat proudly introduces the new Siniat **screw anchor range**.

The new **screw anchor range** has been designed for use with Siniat's steel wall framing and ceiling frame systems to provide a complete framing solution from one manufacturer with full certification.

With the addition of our very own **screw anchor range**, Siniat can now offer everything you need to install our systems – right down to the last detail.

Because the Siniat **screw anchor range** is an integral part of the full Siniat system performance, it is essential for the **Siniat Warranty** and engineering certification.



did you know?

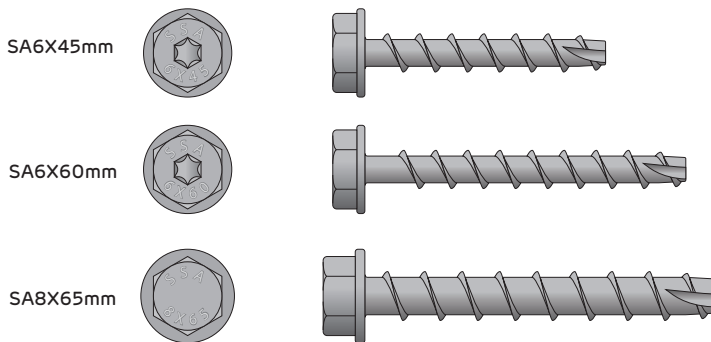
The Siniat Warranty is unique in the industry. The Warranty does not only guarantee the products, but the whole wall and ceiling systems. By incorporating Siniat's **screw anchors** into your design, you can enjoy full peace of mind knowing that you are covered! Siniat also offers full engineering design compliance certifications on each of the projects we design.

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the screw anchor range

Siniat's **screw anchor range** are made of robust carbon steel and zinc-plated and are available in three shaft lengths of 45, 60 and 65 mm.



key benefits

- part of the complete certified Siniat wall and ceiling system
- compatible with Siniat metal products
- minimal edge distance and anchor and spacing required
- ETA certified and complies with AS 5216:2018 *Design of post-installed and cast-in fastenings in concrete*

anchor dimensions

anchor	sa6x45	sa6x60	sa8x65
nominal embedment depth h_{nom} (mm)	40	55	60
maximum fixture thickness t_{fix} (mm)	5	5	5
threaded outer diameter d_t (mm)	7.85	7.85	10.3
core diameter d_k (mm)	5.85	5.85	7.85
shaft diameter d_s (mm)	6.15	6.15	8.45
shaft length (mm)	45	60	65

applications

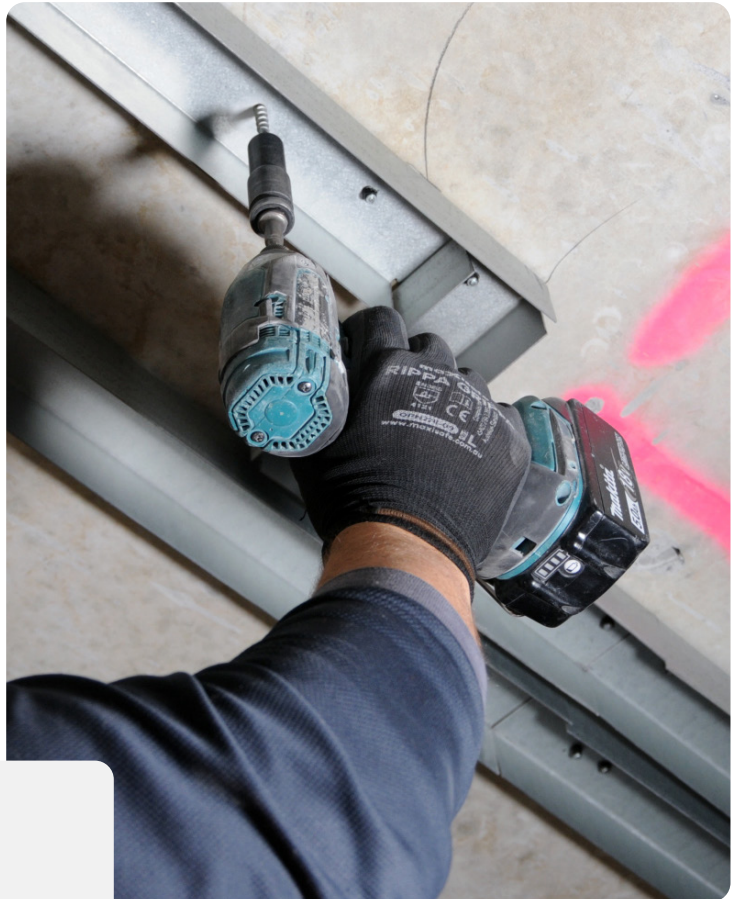
The Siniat **screw anchor** range is compatible with the following substrates:

- Cracked and uncracked concrete for wall, floor and overhead applications
- Autoclaved aerated concrete for walls
- Solid brick for walls

They are suitable for use in the following loads:

- Static loads
- Quasi-static load
- Seismic C1 load certified
- Fire resistance loads

Siniat **screw anchors** are for internal use and behind external cladding, but not for outside the building envelope.



Siniat metal

Download the [Siniat Metal Catalogue](#) for more information on our range of metal products and systems.



product information

properties

anchor	sa6x45	sa6x60	sa8x65
head type	hex-head SW13	hex-head SW13	hex-head SW13
corrosion protection	8 μm zinc coating	8 μm zinc coating	8 μm zinc coating
nominal tensile strength f_{uk} (N/mm ²)	930	930	810
yield strength f_{yk} (N/mm ²)	745	745	695
stressed cross-section a_s (mm ²)	26.9	26.9	48.4

concrete thickness and anchor placement

anchor	sa6x45	sa6x60	sa8x65
minimum concrete thickness (mm)	80	100	100
minimum spacing S_{min} (mm)	35	35	50
minimum edge distance C_{min} (mm)	35	35	40

product information

static and quasi-static performance in concrete

		static / quasi-static loads					
design resistance in cracked concrete		pull-out (kN)			pull-out (kN)		
		sa6x45	sa6x60	sa8x65	sa6x45	sa6x60	sa8x65
nominal embedment depth h_{nom} (mm)		40	55	60	40	55	60
concrete grade (mpa)	20	1.39	3.33	6.00	3.77	8.33	12.67
	25	1.54	3.70	6.66	4.22	8.33	12.67
	32	1.76	4.22	7.59	4.77	8.33	12.67
	40	1.96	4.70	8.46	5.33	8.33	12.67
	50	2.19	5.27	9.48	5.96	8.33	12.67

1. No edge distance and spacing influence, or reinforcement affects.

2. Interaction of both Pull-out and Shear to be considered as per AS5216-2018 Equation 8.2.1(1) and 8.2.1(2)

seismic c1 performance in concrete

		seismic c1 loads					
design resistance in cracked concrete		pull-out (kN)			pull-out (kN)		
		sa6x45	sa6x60	sa8x65	sa6x45	sa6x60	sa8x65
nominal embedment depth h_{nom} (mm)		40	55	60	40	55	60
concrete grade (mpa)	20	1.39	2.22	6.00	1.60	1.67	3.97
	≥ 25	1.39	2.22	6.00	1.67	1.67	3.97

1. No edge distance and spacing influence, or reinforcement affects.

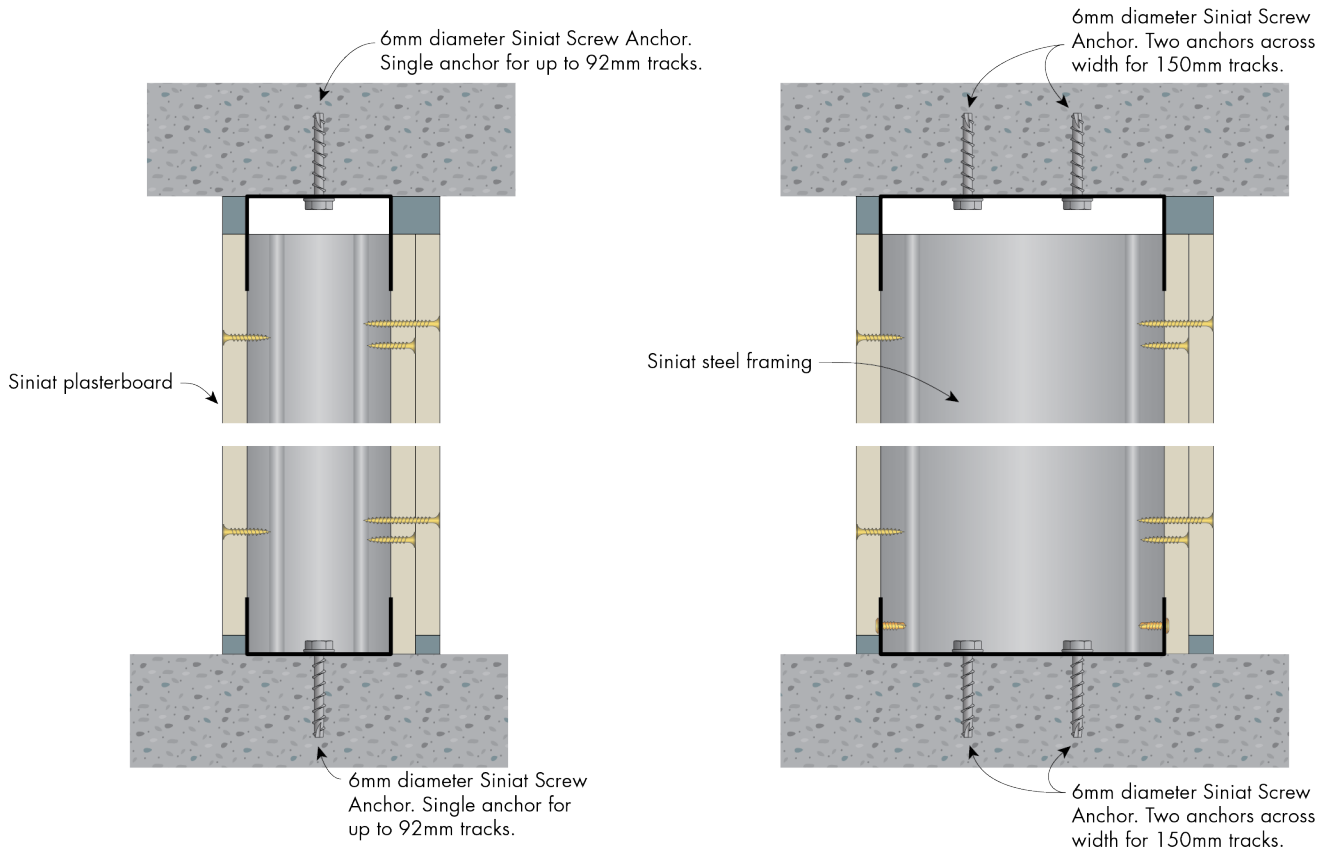
2. Interaction of both Pull-out and Shear to be considered as per AS5216-2018 Equation 8.2.1(1) and 8.2.1(2)

3. $a_{sp} = 0.5$

construction details

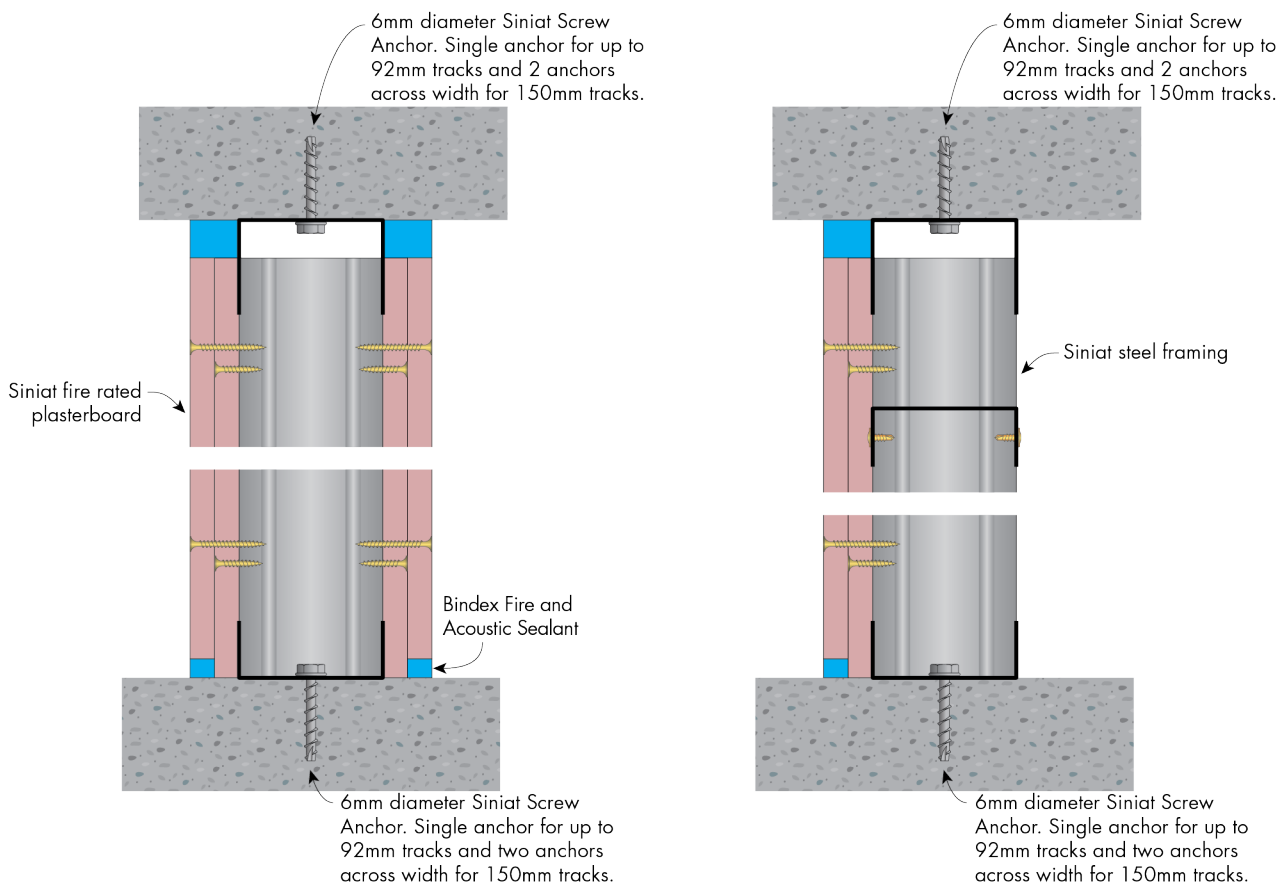
non-fire rated

head and base details for internal stud walls - lined full height



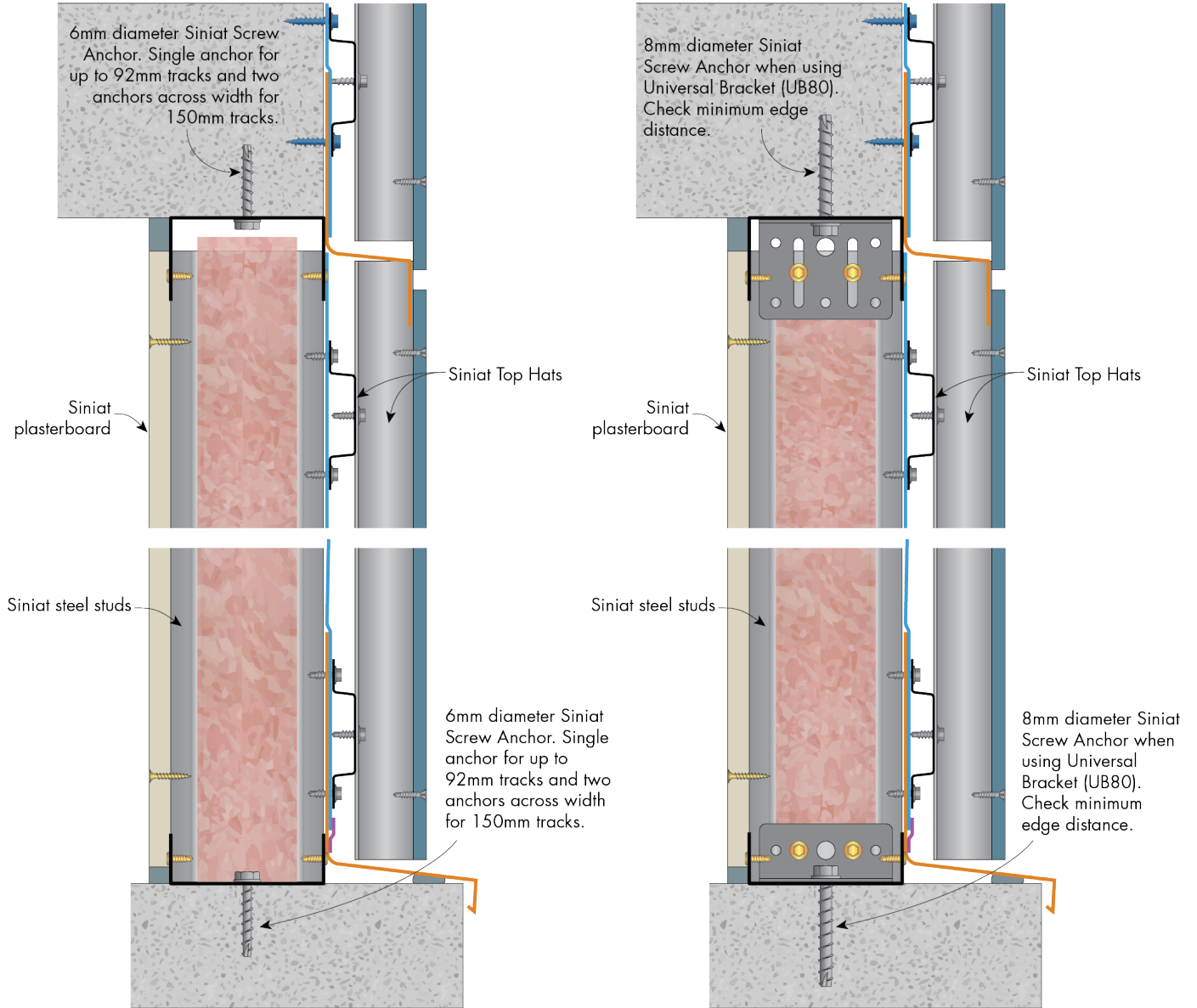
fire rated

head and base details for internal stud walls - lined full height - up to 2 layers



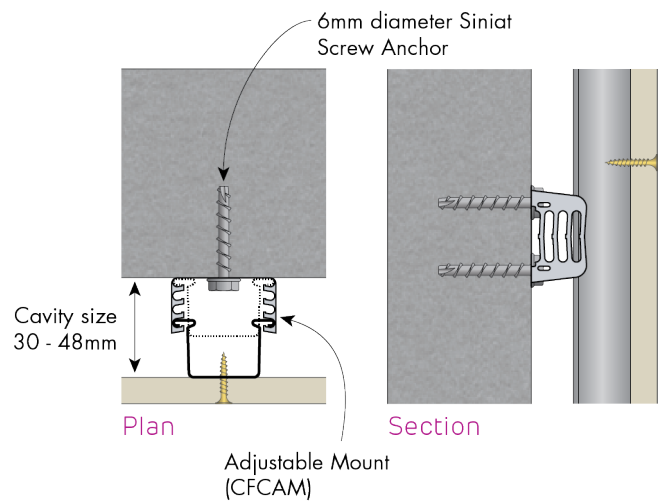
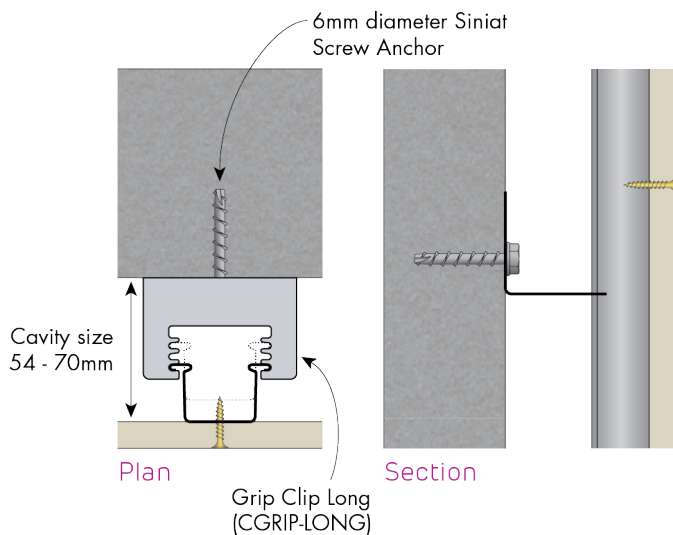
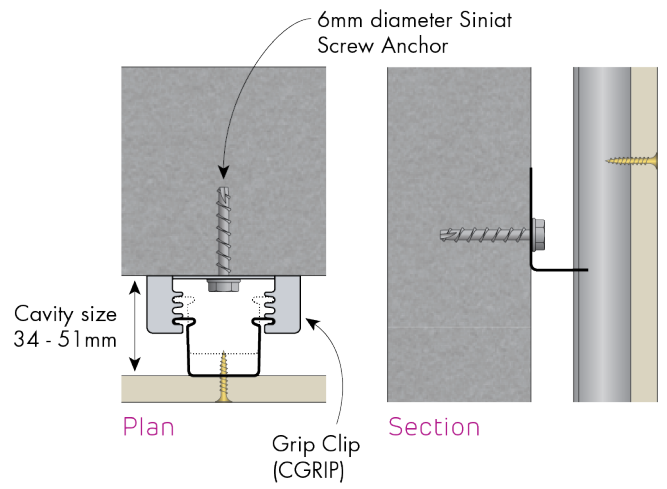
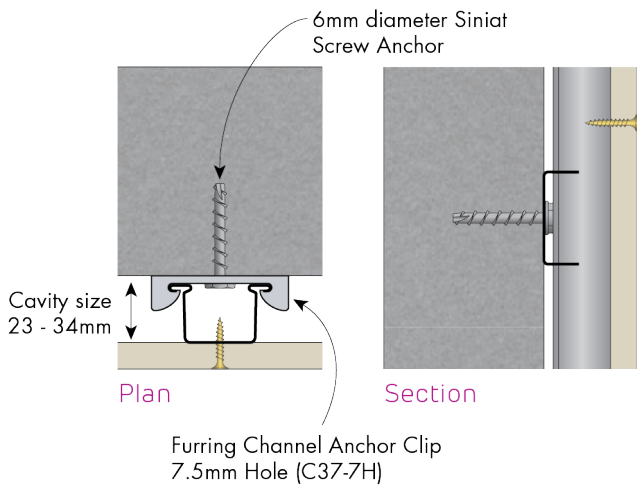
non-fire rated

typical head and base details for non-load bearing external steel stud walls

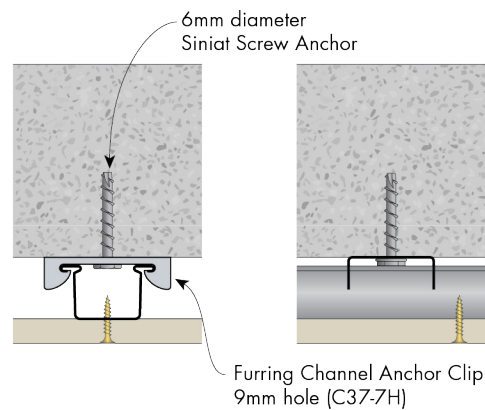
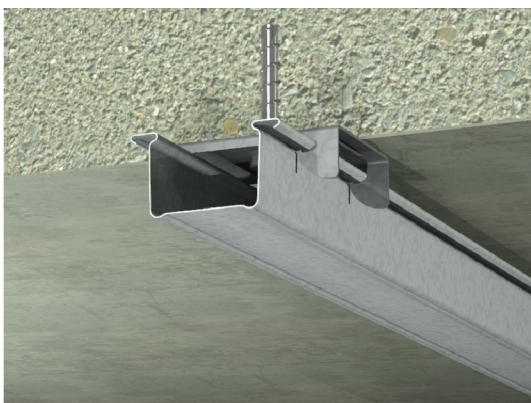
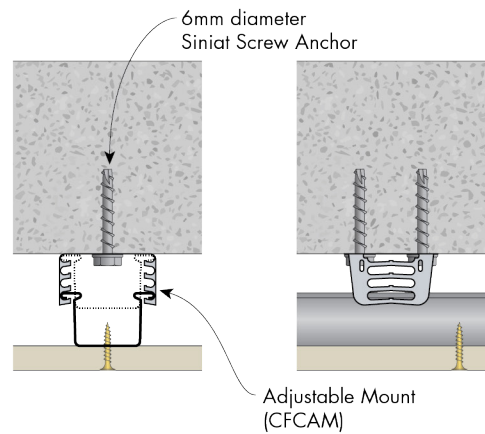
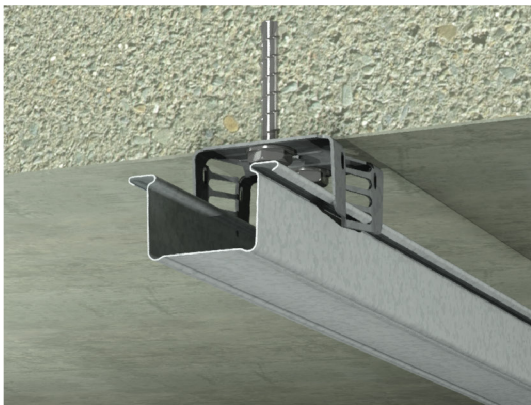
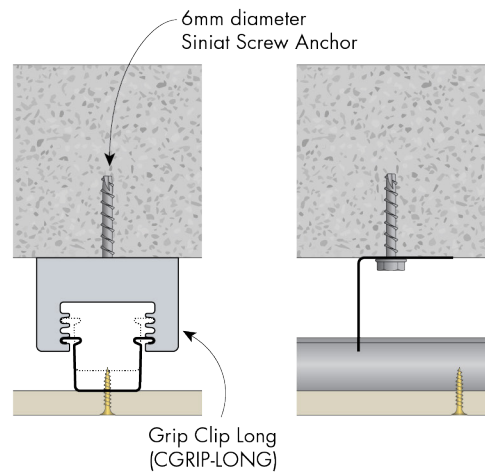
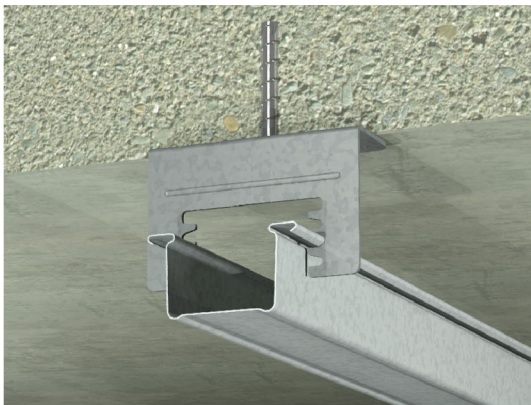
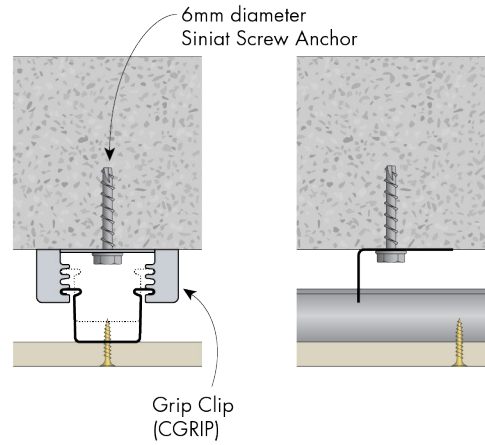
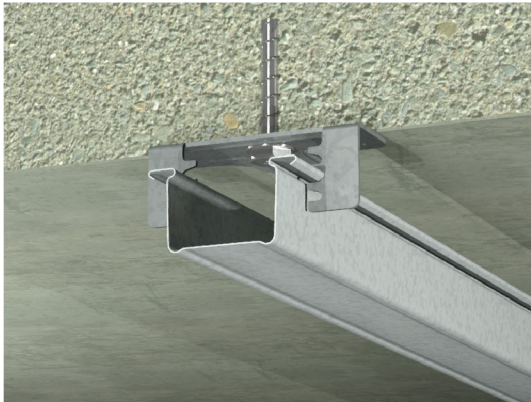




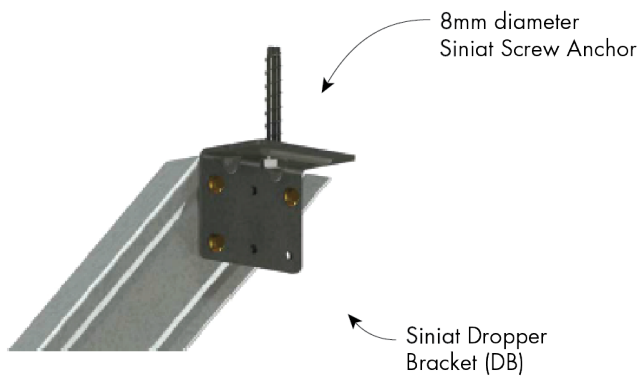
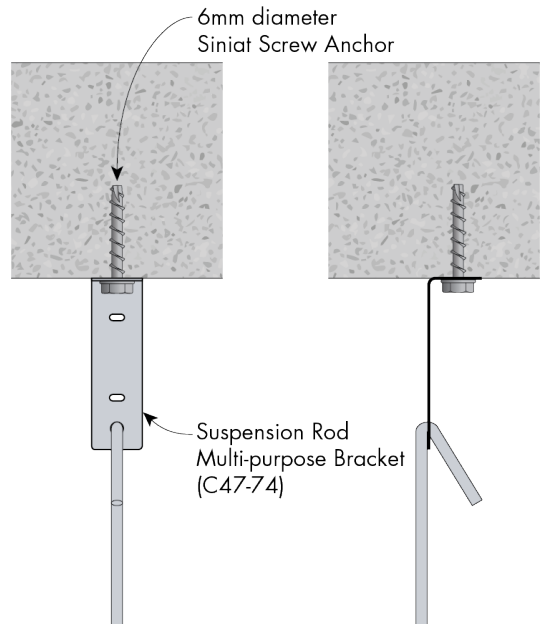
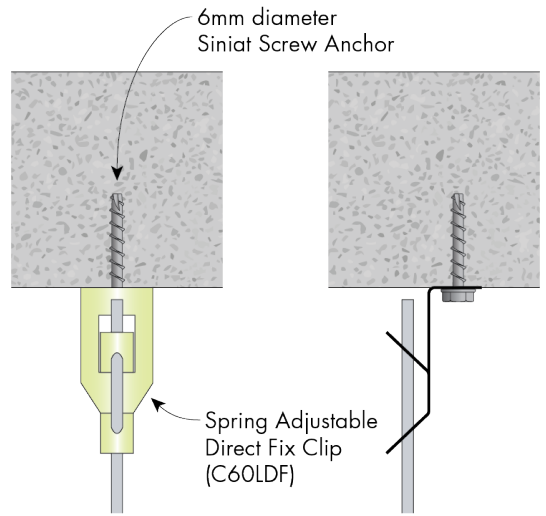
fire rated and non-fire rated
furring channel clips into masonry



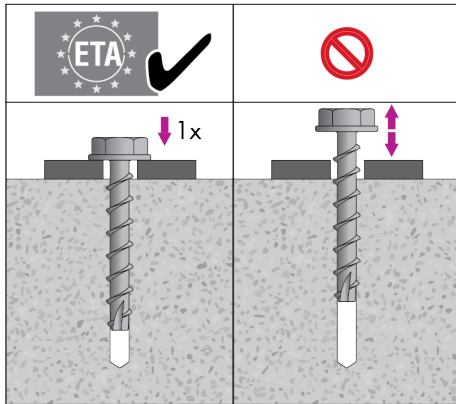
**fire rated and non-fire rated
internal direct fix ceiling frames**



fire rated and non-fire rated
internal suspended rod clips



siniat screw anchor installation SA6x45 and SA6x60



	SA6x45	
	h_1	50mm
	h_{nom}	40mm
	t_{fix}	5mm maximum
SA6x60		
h_1	65mm	
h_{nom}	55mm	
t_{fix}	5mm maximum	

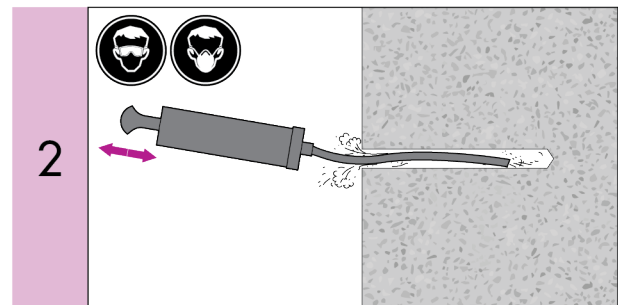
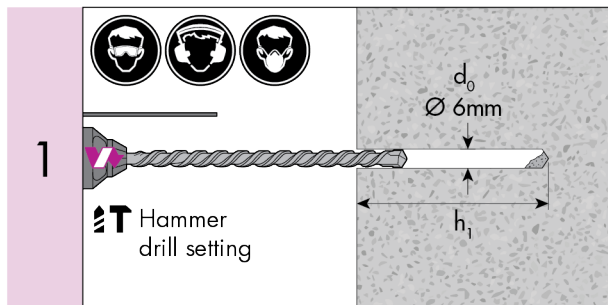
General Applications

Section

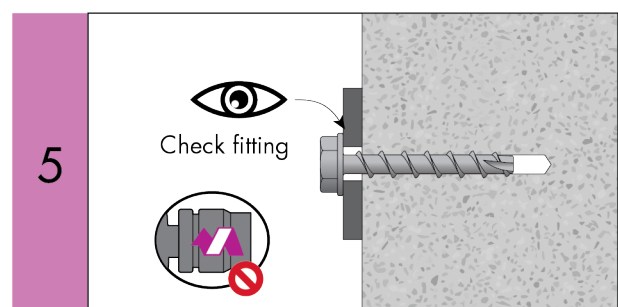
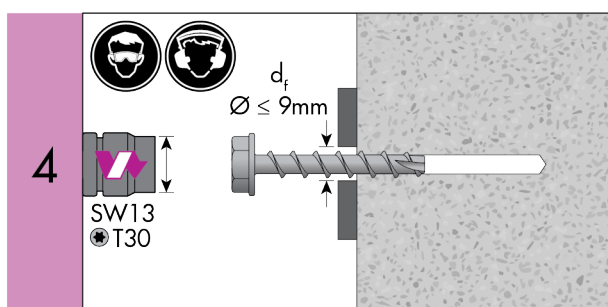
	SA6x45	
	h_1	48mm
	h_{nom}	40mm
	t_{fix}	5mm maximum
SA6x60		
h_1	63mm	
h_{nom}	55mm	
t_{fix}	5mm maximum	

Overhead Applications

Section

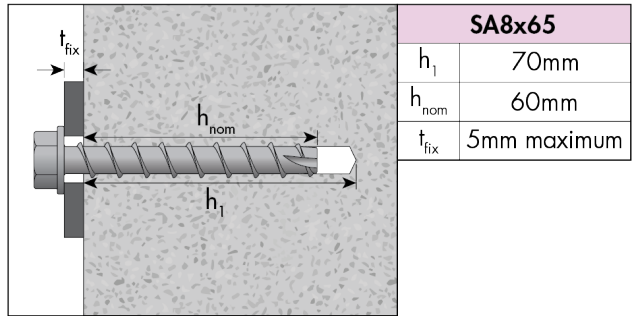
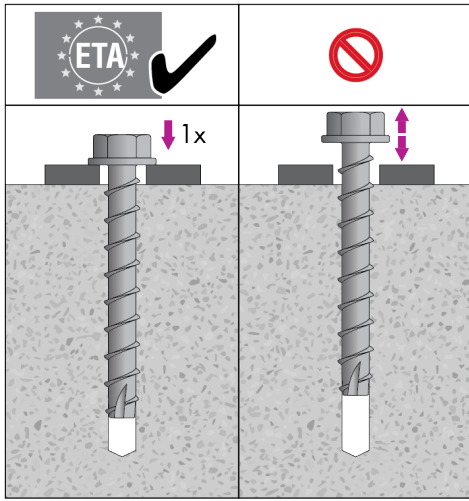


3	h_{nom}	Hilti Impact Driver / Wrench			Installation torque
		SID 2-A 1/2"	SIW 6AT-A22 1/2"	SIW 22TA 1/2"	
	40mm	✓		✗	20 Nm
55mm	✓		✗	25 Nm	

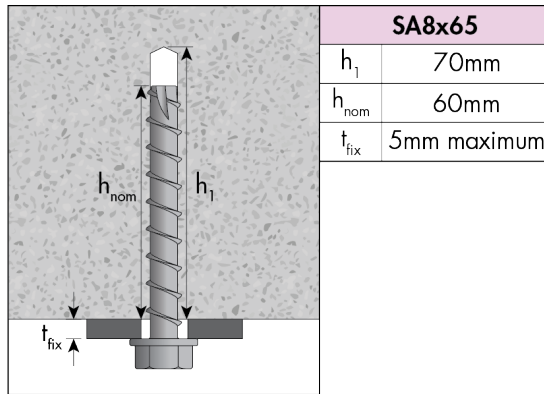


siniat screw anchor installation

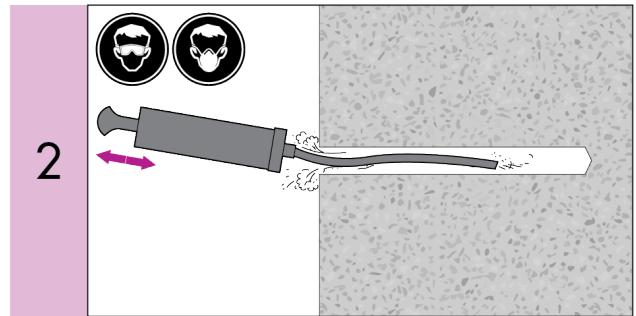
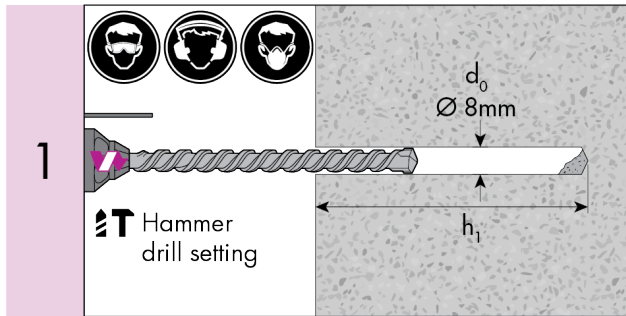
SA8x65



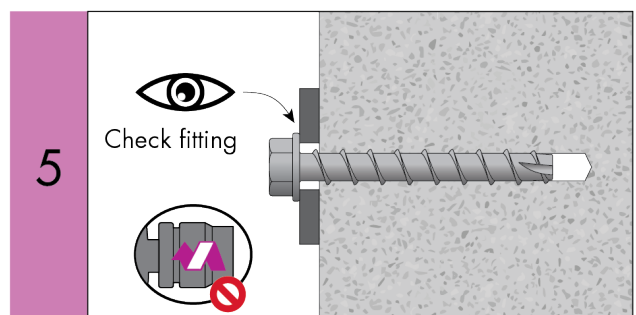
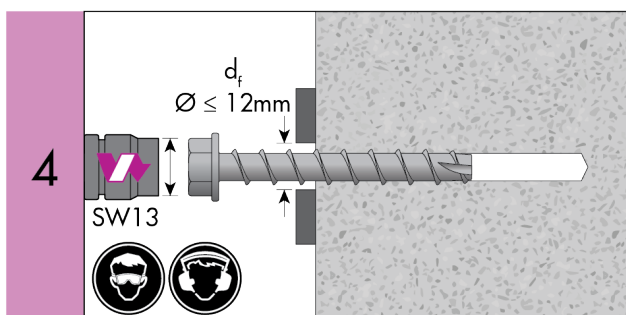
General Applications
Section



Overhead Applications
Section



3	h_{nom}	Hilti Impact Driver / Wrench				
		SIW 22-A 1/2"	SIW 6AT-A22 1/2"	SIW 22T-A 1/2"	SIW 22T-A 3/4"	SIW 9-A22 3/4"
	60mm	✓	✓	✓	✓	⊘



case study

brisbane international cruise terminal

The new, world-class \$177 million Brisbane International Cruise Terminal (BICT) project, some 20 km north-east of Brisbane and adjacent to the Brisbane Airport, is an excellent example of where Siniat provided not only products, but full design support to deliver the best outcome for the client.

Siniat's engineers provided a total of 8 unique and project specific designs for this project, and these designs led to a significant reduction in the material required.

While the BICT project was completed before Siniat introduced its own **screw anchor range** to the market, it indicates how our offering extends beyond the supply of products. Involving our engineers and Knowhow from the start can lead to the development of the best possible design and systems that can be covered by the comprehensive Siniat Warranty.

about the project

Siniat's engineers provided a total of 8 unique and project specific design and supplied specialist metal products such as made-to-length 1.5 BMT jamb studs, which increased the installation speed and reduced waste on site as the studs did not need to be cut down.

In total over 60,000 pieces of metal were supplied to the project, comprising of 15,000 clips; 7,000 studs and track; 4,000 furring channels and top cross rails and 3,000 top hats.

Siniat also supplied a total of approximately 19,000m² plasterboard products, including **trurock** (5886m²), **fireshield** (3456m²), **Designpanel** (302m²) and **Stratopanel** (2760m²).

Stratopanel access panels were also supplied.

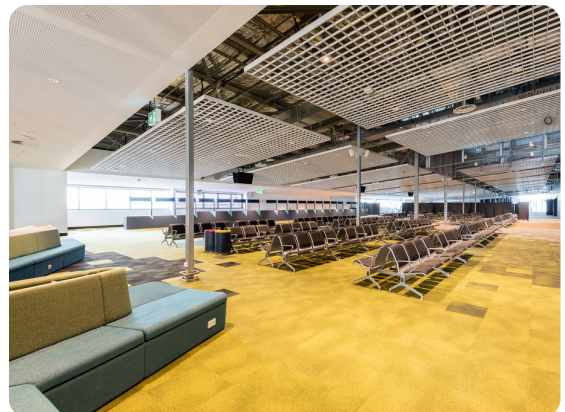
the feedback

Superior Walls and Ceilings Foreman Joel Creevey said: "I was very impressed by the service provided by Siniat on this project.

"From the start the service provided by their engineering team was exceptional, and thanks to the smart put into the designs we managed to reduce the amount of material needed.

"Siniat also provided expert installation advice, and the turnaround time on any enquiries was way above the industry average. I was on the phone with Salim (Zadeh, Siniat Structural Field Engineer QLD) almost every week and he also visited the site when needed. Siniat's support was hands-on," he said.

[Read the full case study here.](#)



Siniat **warranty** the safety net for ultimate **peace of mind.**



Many manufacturers offer 10 year product warranties, but the Siniat Warranty takes this to a whole new level.

Not only do we guarantee our Siniat products, but our advanced system engineering and rigorous testing regimes give us the confidence to offer you a warranty that can cover the whole wall and ceiling systems.

So when you install Siniat products as a complete system in accordance to our recommendations, you have the ultimate peace of mind knowing that you are covered by the Siniat Warranty.

Let's build better, together.

To find out more about enjoying the ultimate peace of mind, visit:
siniat.com.au/warranty



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warranty

Siniat's products are guaranteed
by a 10 Year Warranty.
For details visit siniat.com.au/warranty

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