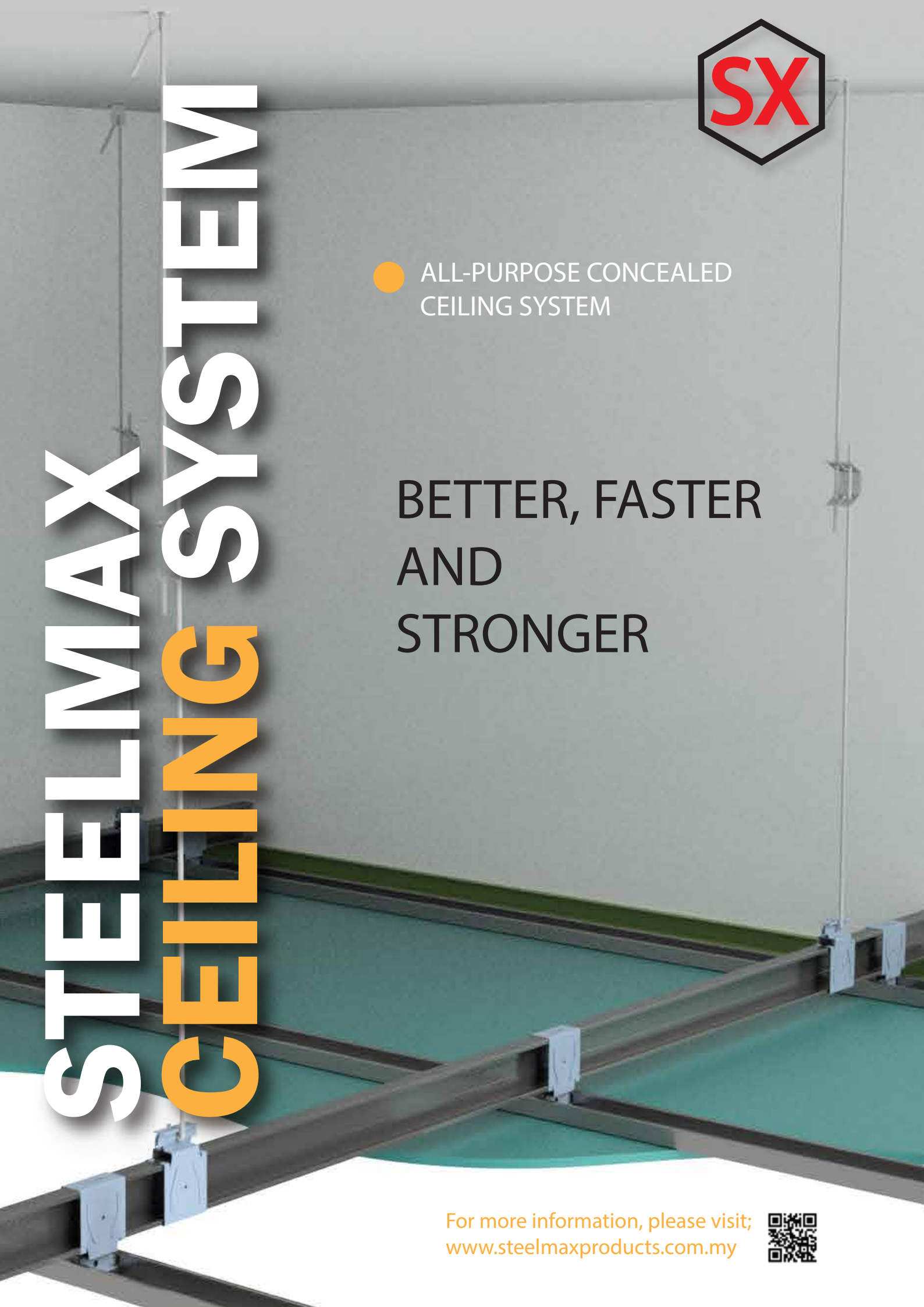
STEELMAX CEILING SYSTEM

SX

ALL-PURPOSE CONCEALED CEILING SYSTEM

BETTER, FASTER AND STRONGER



For more information, please visit;
www.steelmaxproducts.com.my

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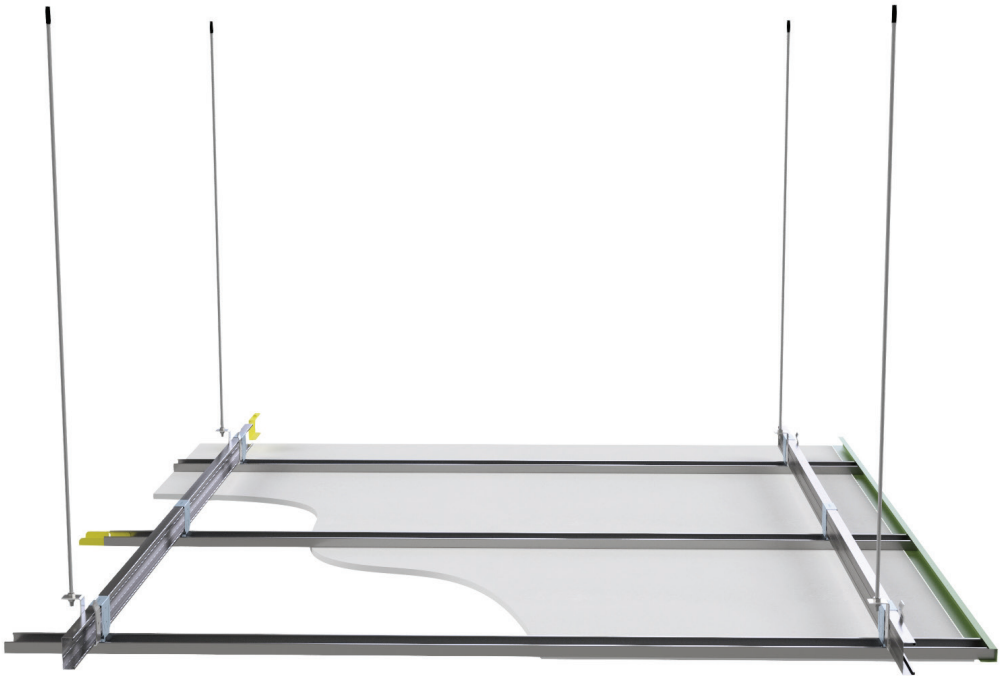
SXL CEILING SYSTEM



INTRODUCTION

Introducing the SteelMax SXL ceiling system - the ultimate solution for both Heavy and Light suspended concealed ceiling construction. Our innovative metal framing structure is specially designed to support a wide range of ceiling lining materials, such as gypsum plasterboard, calcium silicate, and fiber-reinforced cement panels.

Crafted to meet recommended specifications, the SteelMax SXL ceiling system guarantees exceptional acoustic and thermal performance, while providing the ultimate in aesthetic flexibility. With its customizable design options, our ceiling system allows you to create the perfect look and feel for any project.

Experience peace of mind knowing that the SteelMax SXL ceiling system delivers the reliability and efficiency you need for your space. Invest in the best for your project and choose SteelMax SXL.

APPLICATION

SteelMax SXL ceiling system is perfect for both domestic and commercial areas where a high-quality finish and evenness of the ceiling appearance are necessary. Our system is ideally suited for spaces where services need to be accommodated and can also prevent ceiling uplift due to wind pressure.

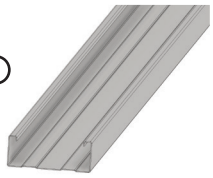
Our system is particularly suitable for external ceilings, including alfresco areas, carports, balconies, and breezeways with flush ceiling board installed. Trust SteelMax SXL for a flawless and durable ceiling solution.

FEATURES

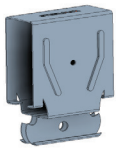
1. Enhanced loadbearing capacity and yet lightweight.
2. Quick and simple installation, with ease of adjustment for leveling.
3. Flexible angling or radius for Doom-shaped and Staggered ceiling.
4. Farther ceiling support spacing allowing ease of accommodating M&E services or HVAC ductwork above ceiling level.
5. Provides additional support for fixing of lighting panel.
6. Wider web surface up to 48mm width on metal channel frame allowing secure and stable fixing of board joins.
7. Optimising ceiling strength via flexible design to accommodate ceiling lining of various material type and thicknesses.
8. Consistent flatness over large ceiling area, and many more.
9. Good resistance against corrosion or rust.

MAIN COMPONENTS

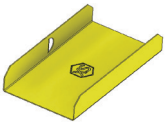
SteelMax ceiling profiles, components are manufactured to comply with BS 5950, AS/NZS 2785:2000 standard.



① CHANNEL SXL3650
48MM X 17MM X
0.5MM X 3650MM
PART NUMBER :
SXL3650



② HANGER CLIP
72MM X 48MM X 0.6MM
PART NUMBER :
SHC



③ CHANNEL SPLICE
46MM X 15MM X 0.5MM
PART NUMBER :
SLC-1

④ 2mm HANGER
74MM X 24MM X 2MM
PART NUMBER :
S2H

HANGING MEMBER TYPE 1 - THREADED ROD DIAMETER 6MM , 8MM

⑦ M6
PART NUMBER :
HZX34-M6

or

DROP IN ANCHOR
6MM X 25MM
PART NUMBER :
DROP IN ANCHOR 6

⑧ M6 nut
PART NUMBER : M6 NUT

⑥ 6mm DIAMETER THREADED ROD
6MM(DIAMETER) X VARIOUS LENGTH
PART NUMBER : THREADED ROD 6

HANGING MEMBER TYPE 2 - 4mm WIRE ROD

⑨ PART NUMBER : HXL34

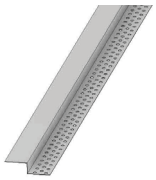
⑩ GALVANISED WIRE ROD
4MM(DIAMETER) X VARIOUS LENGTH
PART NUMBER : WL4

⑪ BUTTERFLY SPRING CLIP
43MM X 28MM X 0.58MM
PART NUMBER : BSC

ACCESSORIES

J hook
65MM X 24MM X 3MM
PART NUMBER : J HOOK

Shadow Gap
30MM X 10MM X10MMX
0.35MM
PART NUMBER :SSG-10



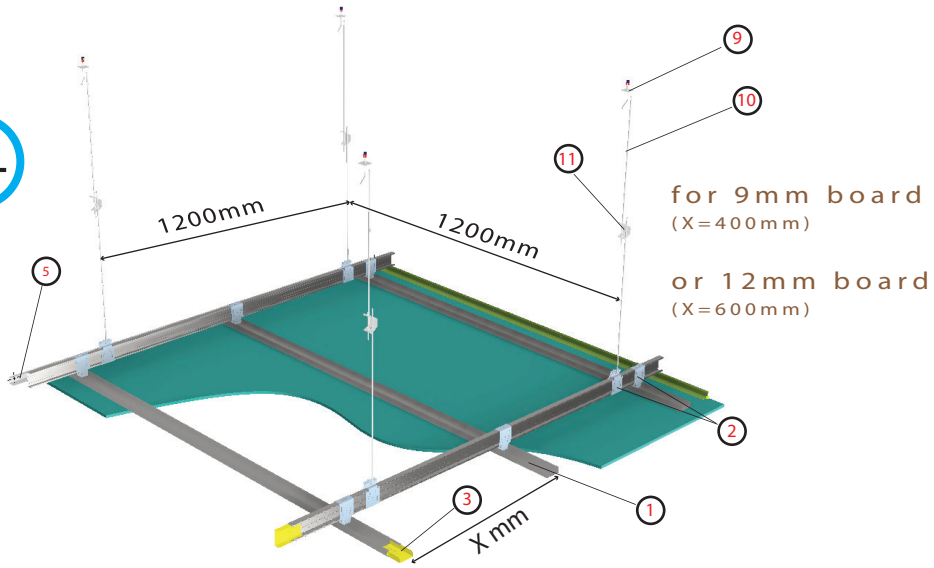
Shadow Gap
30MM X 20MM X10MMX
0.35MM
PART NUMBER :SSG-20

PERIMETER
25MM X 20MM X
12MM X 0.5MM
PART NUMBER : SLP2440

TYPE OF CEILING SUSPENSION

SXL ceiling system provides a variety of application configurations using either 4mm diameter wire rod or 6mm diameter threaded rod as a form of ceiling suspension.

SXL LIGHTWEIGHT CEILING SYSTEM (4mm wire rod suspension)

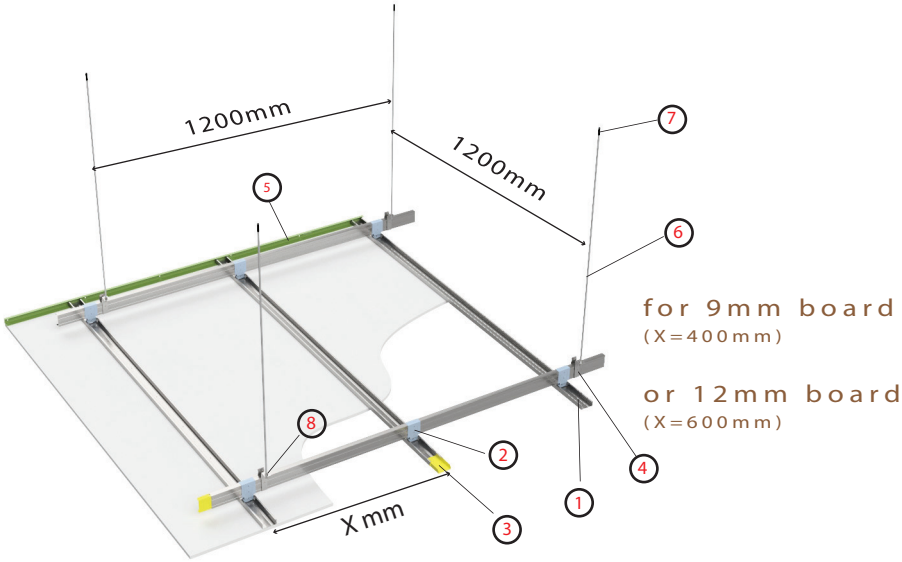


for 9mm board
(X=400mm)

or 12mm board
(X=600mm)

Application: condominum, offices, terrace house, change of pitch, radius ceiling..etc (for suspension not more than 600mm)

SXL HEAVY DUTY CEILING SYSTEM (6mm threaded rod suspension)



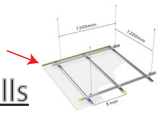
for 9mm board
(X=400mm)

or 12mm board
(X=600mm)

Application: condominum, offices, terrace house, convention hall, shopping mall, wind load area....etc

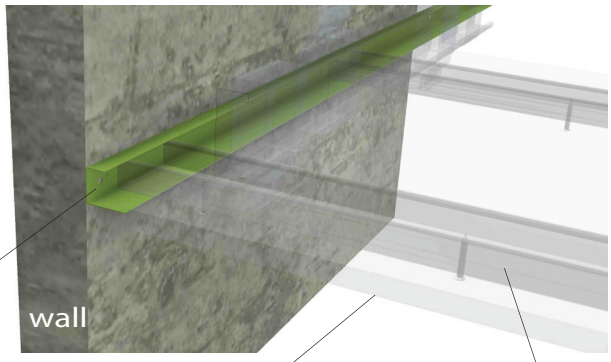
INSTALLATION

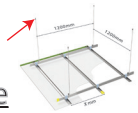
To install the ceiling suspension system, ensure that the building is closed in, and wet works are dry. Proper coordination of E&M services installation above ceiling level is necessary to avoid work disruption. The ceiling suspension system must be designed as per the AS/NZS2785 standard for safe installation. Engage a qualified professional for safe and effective installation.



Fixing of Perimeter(SLP2440) to walls

Set the ceiling level, and fix the perimeter using SLP2440 along the walls. Ensure the SLP2440 is fixed at a 90° angle to the direction of the Secondary Channel (SXL3650). This will provide a secure foundation for the ceiling suspension system and ensure





Fixing of Suspension and anchoring type

The actual location of the suspended point on-site should be identified and positioned no more than 100mm away from the perimeter wall. To secure the suspension, either 4mm diameter wire rod or 6mm threaded rod should be attached to anchoring of Type 1 or Type 2. The rods should be spaced at a maximum distance of 1200mm in each direction. It's important to note that each suspension must be able to withstand both self-load and pressure load of at least 140kg.

Please refer to figure 1a for more information on the use of L bracket and nail gun anchoring.

SXL Type 1 anchoring - 4mm diameter wire rod suspension

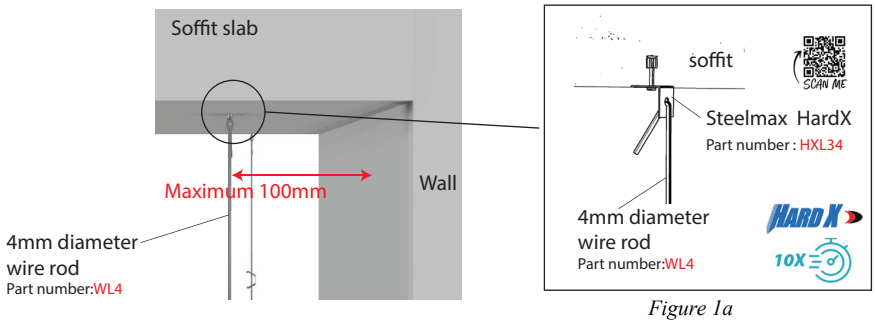


Figure 1a

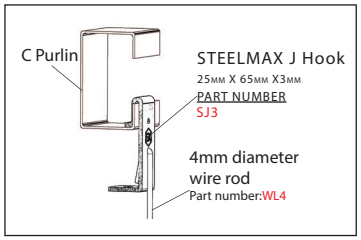
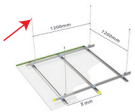
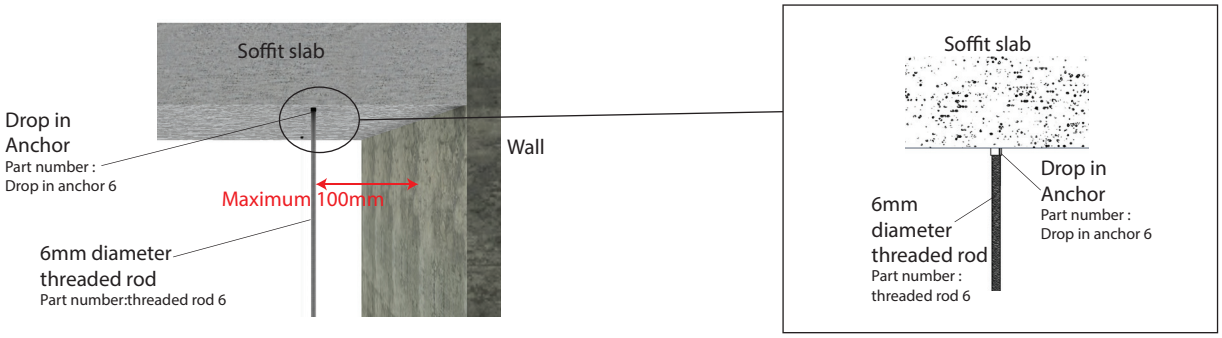


Figure 2

Fixing of Suspension and anchoring type (continued)



SXL Type 2 anchoring - 6mm diameter Threaded Rod suspension



For best result slightly hammer the "pin" inside the drop-in-anchor(figure 3b).

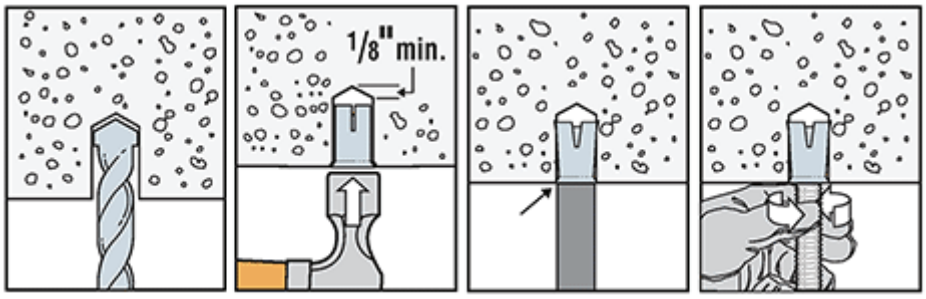
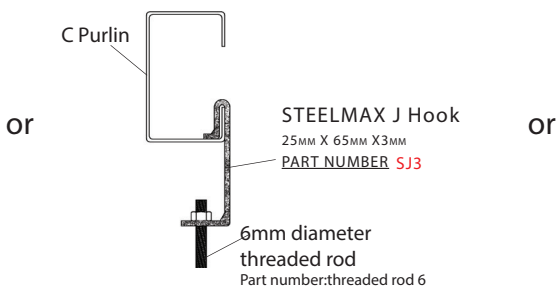
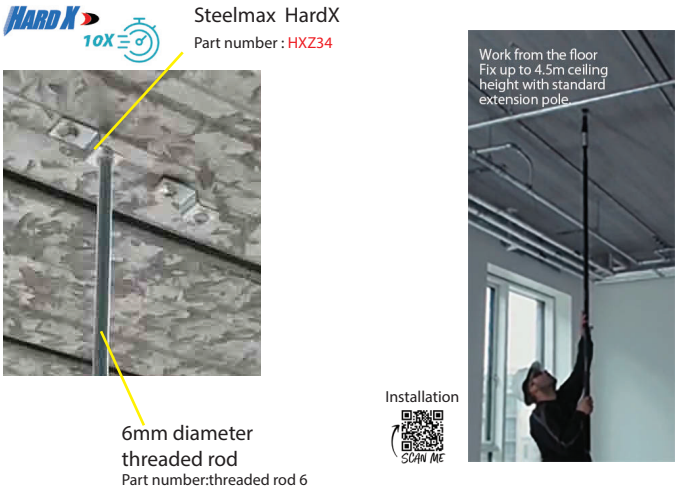


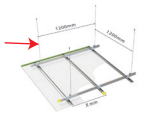
Figure 3a *Figure 3b* *Figure 3c* *Figure 3d*

Cut threaded rod(Threaded rod 6) to require suspension length and screw fix into ¼" Drop-in-anchor(figure 3c). Slightly pull the threaded rod to check the fixing(figure 3d).





Fixing of Suspension and anchoring type (continued)



SXL Type 1 anchoring - 4mm diameter wire rod suspension

The process of using the Butterfly Spring Clip (BSC) to attach a 4mm diameter wire rod (WL4) involves the following steps:

1. Press one side of the Butterfly Spring Clip (BSC) to open it up.
2. Insert the 4mm diameter wire rod (WL4) into the open side of the Butterfly Spring Clip (BSC).
3. Cut another 4mm diameter wire rod to the required length.
4. Press the other side of the Butterfly Spring Clip (BSC) to open it up.
5. Insert the cut wire rod into the open side of the Butterfly Spring Clip (BSC).
6. Release the Butterfly Spring Clip (BSC), which will grip onto both wire rods securely (see Figure 4).

It is important to ensure that both wire rods are inserted fully into the Butterfly Spring Clip (BSC).

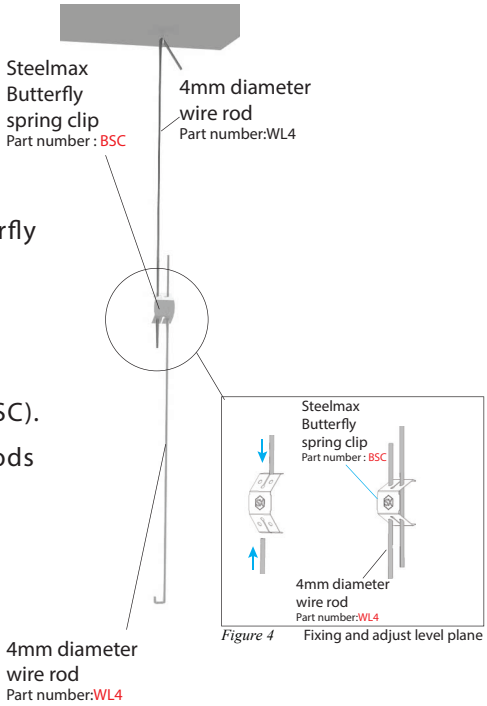


Figure 4 Fixing and adjust level plane

SXL Type 2 anchoring - 6mm diameter Threaded Rod suspension

To attach a 6mm Threaded Rod to an anchoring "Type 2" at one end and a SteelMax 2mm Hanger (S2H) at the other end, follow these steps:

1. Insert one end of the Threaded Rod into the anchoring "Type 2" and fasten it securely.
2. Arrange the Threaded Rods in straight rows, spaced 1200mm apart.(figure 5)
3. Fasten the other end of the Threaded Rod to the S2H using M6 nuts on both the top and bottom.(figure 6)
4. Stagger the placement of the S2H for a stronger assembly.(figure 5)

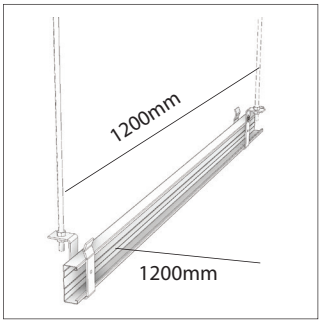


Figure 5

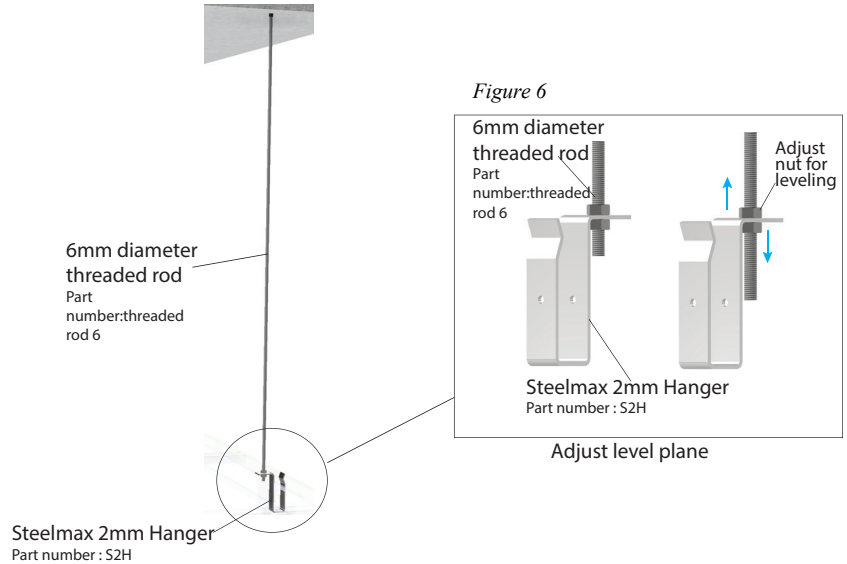
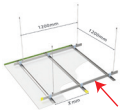


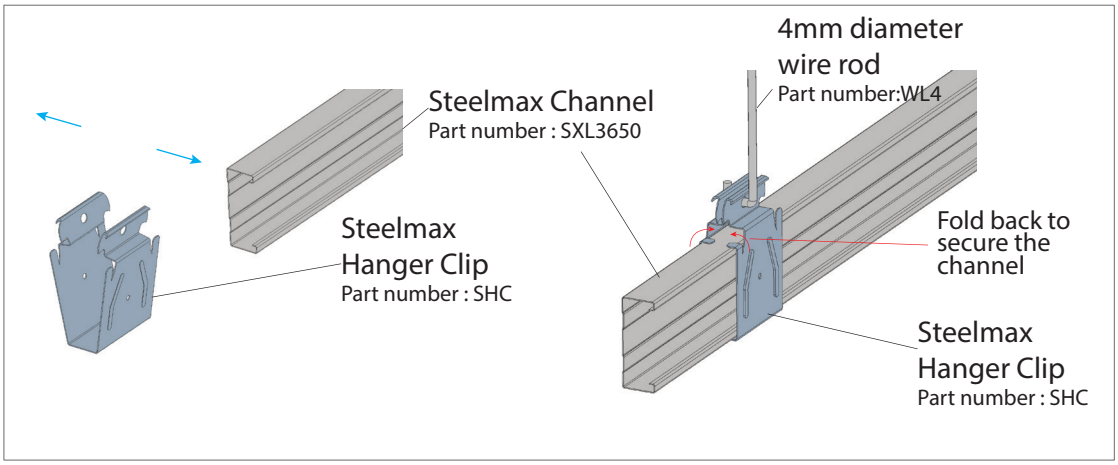
Figure 6

Fixing of Main Channel(SXL3650) to suspension



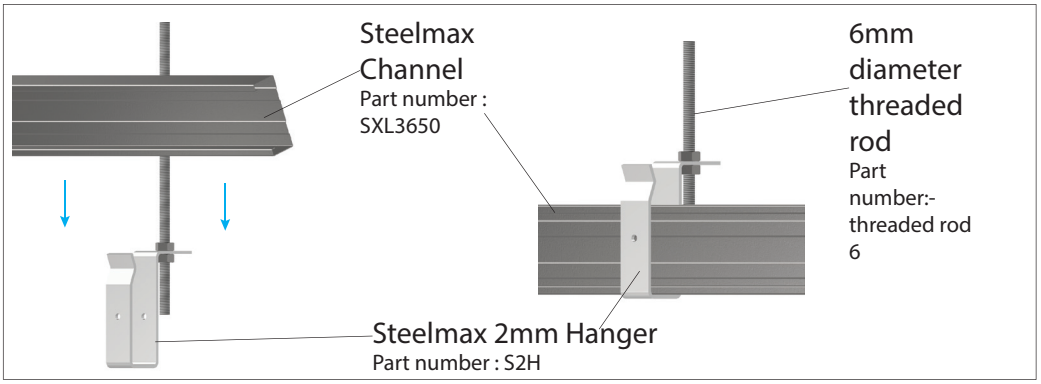
SXL 4mm diameter wire rod suspension

Fix SteelMax Hanger Clip(SHC) to SteelMax Channel (SXL3650) as illustrate below; determine direction of channel(SXL3650) and attach to bottom 4 mm diameter wire rod(WL4).

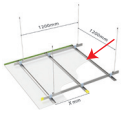


SXL 6mm diameter Threaded rod suspension

Determine direction of channel, fix SteelMax Channel (SXL3650) to SteelMax 2mm Hanger(S2H)as illustrate below.

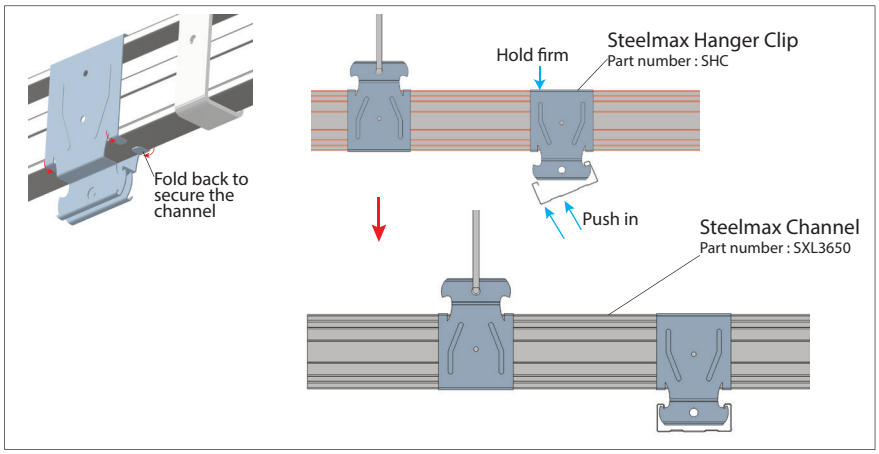


Fixing of Secondary Channel(SXL3650) to Main Channel(SXL3650)



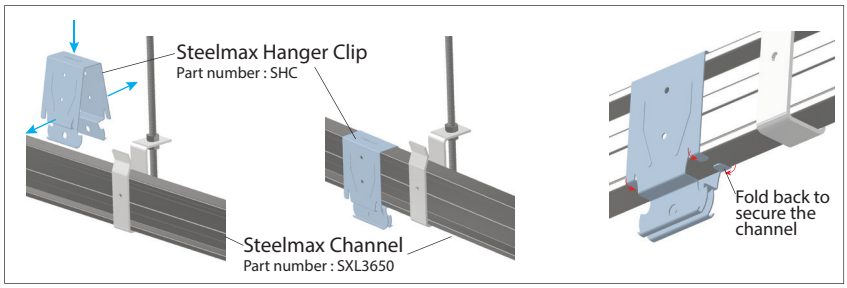
SXL 4mm diameter wire rod suspension

Fix another SteelMax Hanger Clip(SHC) facing downward to SteelMax Channel (SXL3650), use one of secondary channel(SXL3650) flange to hook on one side of SteelMax Hange clip(SHC) "Teeth". Hold firm on top of Hanger Clip(SHC) with the index finger, push in the other side of Secondary Channel(SXL3650) with thumb until properly click into Hanger clip as illustrate below;

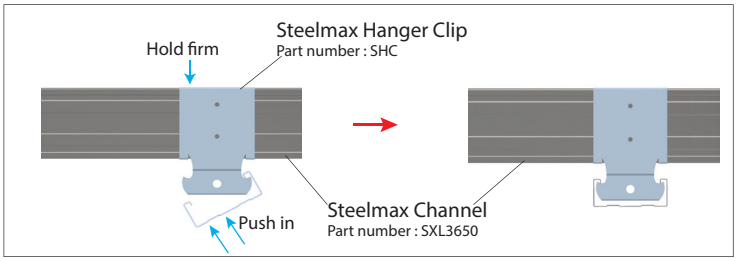


Fixing of secondary channel to Steelmax Hanger Clip

SXL 6mm diameter Threaded rod suspension

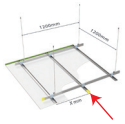


FIXING OF HANGER CLIP TO MAIN RUNNER

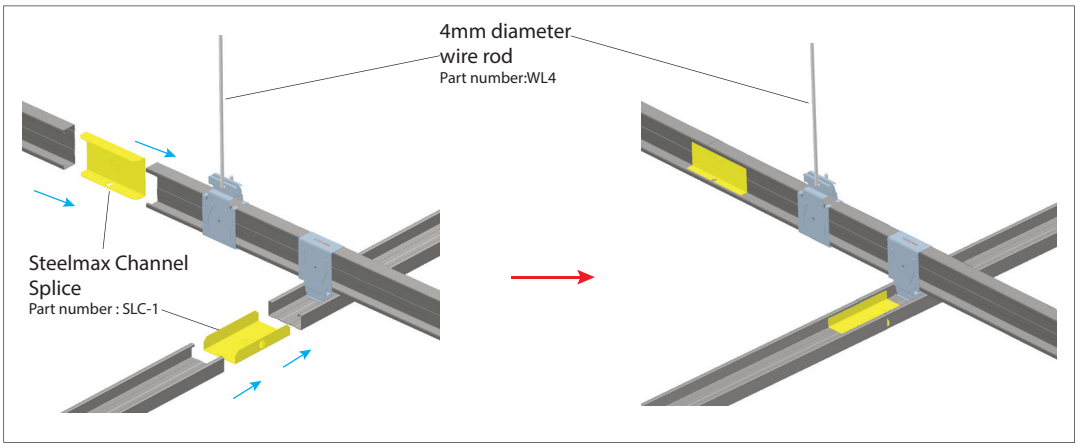


FIXING OF SECONDARY CHANNEL TO HANGER CLIP

Fixing of Secondary Channel Splice(SLC-1)

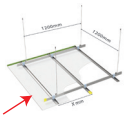


Insert secondary channel splice SLC-1 at the end of Channel(SXL3650) for joining to the other end of channel(SXL3650) to stabilize the framing system.

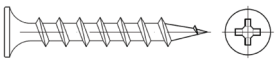


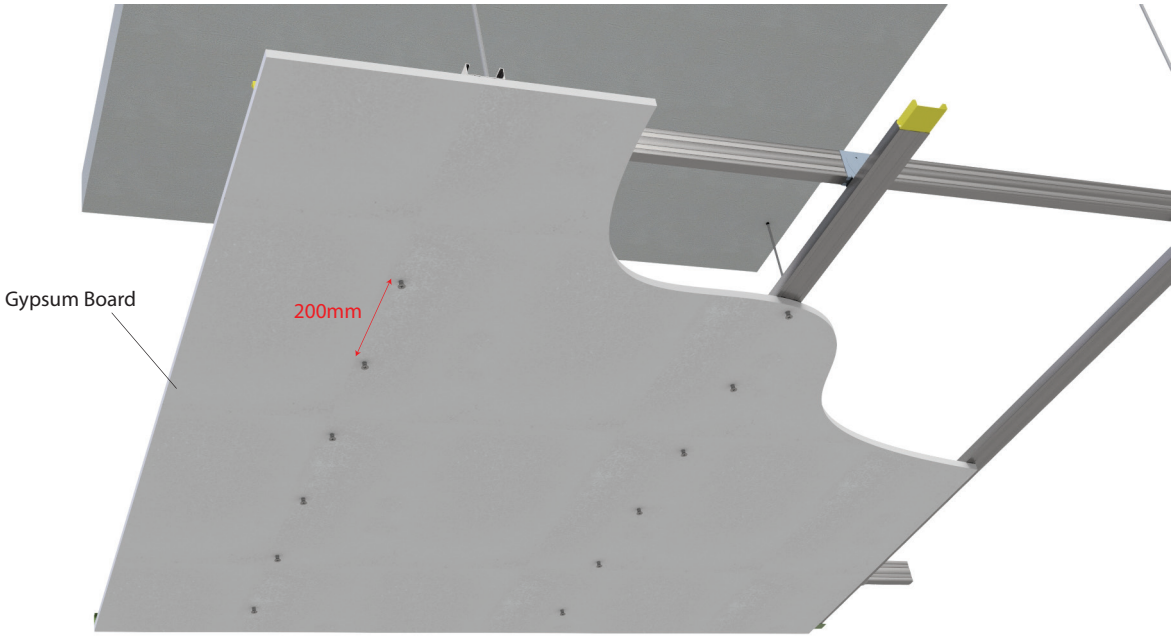
Fixing of Steelmax Channel Splice SLC-1 and SteelMax Channel SXL3650

Fixing of Ceiling Board



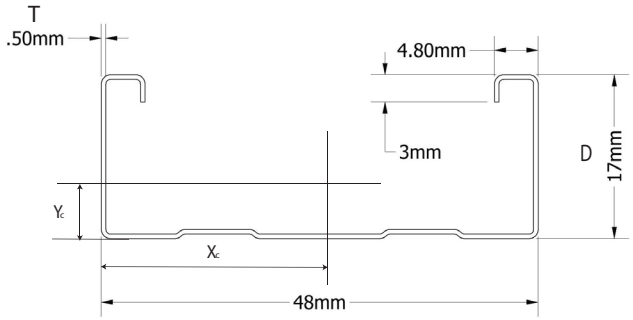
The ceiling board is fixed with No. 4 x 25mm drywall screws(figure 5) at nominal 200mm spacing on center along each secondary channel. The screw heads should be finished 2mm into the surface of ceiling board. Gap is to treat with reinforcing tape and jointing compound to provide seamless smooth surface finishing.





PRODUCT DATA SPECIFICATION

SXL PRIMARY/SECONDARY CHANNEL - SXL3650



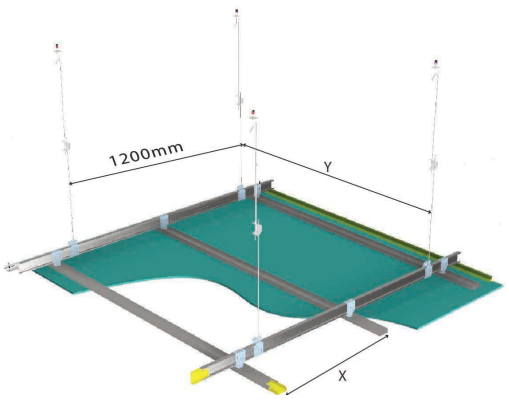
Steel Grade	: JIS G3302
Yield Strength	: 351MPa
Tensile Strength	: 408MPa
Coating Mass	: Min. 80g/m^2

SXL PRIMARY/SECONDARY CHANNEL - SECTION DIMENSIONS

Part Number	AREA mm^2	D mm	T mm	Xc mm	Yc mm	Moment Of Inertia		Self-weight
						Ixx mm^4	Iyy mm^4	
SXL3650	47.62	17	0.5	24	4.63	2142.745	16945.435	0.374kg/m

MAXIMUM CEILING LOAD - KG/M^2

	Primary channel spacing(Y)		
Secondary channel spacing(X)	1200mm	1000mm	800mm
400mm	19kg/m2	37kg/m2	43kg/m2
600mm	12.5kg/m2	28kg/m2	36kg/m2



Note;
- *Deflection limit is L/360*
- *L is the span in mm between the suspension points*
- *Design according to BS5950*
- *Internal wind pressure is not accounted and these ceilings are for internal application*