November 2020 Issue

SFS Steel Formed Sections

SFS INTERNAL SYSTEMS

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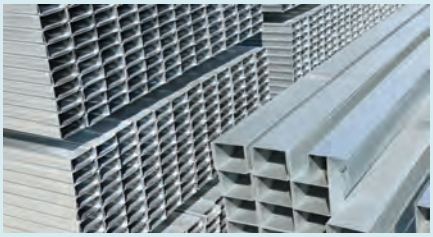
Email: info@SteelFormedSections.com
www.SteelFormedSections.com



SFS Steel Formed Sections

CONTENTS

SFS INTRODUCTION

BACKGROUND

Steel Formed Sections was formed in November 2005 and is today Ireland's largest producer of cold rolled sections for Internal Partition, MF Ceiling and external SFS Framing systems.

Our company has gained essential expertise and product knowledge through close business relationships with customers, suppliers and research partners, including Cambridge Fire Research and Sound Research Laboratories.

From our purpose-built 25,000 square feet production facility based in Castleblayney, County Monaghan, we can give fast and reliable delivery and collection services with excellent access to all major road networks throughout Ireland and the UK.

We can offer our customers sections ranging from 50-300mm ranging in gauge thickness from 0.5 to 3mm thanks to our investment in modern rolling technology in 2014. We like to work with the design team as early as possible in the design process so that our technical input can assist the team to find the most effective and economical solutions.

We recommend that Steel Formed Sections systems are installed by sub-contractors with the relevant expertise and can suggest some suitable sub-contractors, if requested.

Design/Consultation

Manufacturing

Delivering

Technical Support/
After Sales Team

SFS INTRODUCTION

SFS Steel Formed Sections

SERVICE

We provide a comprehensive range of services to meet our client's needs including

- Design expertise and Consultation
- Manufacturing and Delivery services
- Technical Support
- A first class After Sales Service

Generally, we manufacture to order and we like to collaborate on design at the earliest possible stage in the project, to add value for our customers. This ensures the very best solution is devised to meet your requirements and project goals.

COLD ROLLED SECTIONS EXPERTISE

Steel Formed Sections, Ireland's largest producer of cold rolled sections, has been delivering world-class solutions for a variety of sectors including commercial, residential and state departments. Our customers benefit from

- A skilled, expert team
- Quality manufacturing processes
- Fast, safe delivery.
- Responsive service.

We look forward to working with you.

QUALITY & ACCREDITATIONS

SFS Steel Formed Sections

Priding ourselves on offering our customers the highest quality possible, SFS employs stringent quality control measures throughout the entire production cycle. Each batch of SFS products goes through an exacting process, with up to eleven screening inspections ensuring that all metal products conform to strict specification guidelines. In Addition to our rigorous in house testing all SFS partition systems are independantly tested for both Fire and Acoustic performance*.

*All tests are carried out to conform to current Market Standards and are carried out by the following UKAS accredited test centres:

CAMBRIDGE FIRERESEARCH

Address: Cambridge Fire Research Ltd, Brewery Road, Pampisford, Cambridge, CB22 3HG, United Kingdom.

Tel: +44 (0) 1223 834752

Fax: +44 (0) 1223 837208

Email: testing@cambridge.co.uk

The Building Test Centre

Fire Acoustics Structures

Address: The Building Test Centre, British Gypsum, East Leake, Loughborough, Leicester, LE12 6NP, United Kingdom.

Tel: +44 (0) 945 1564

Fax: +44 (0) 945 1562

Email: btc.testing@bpm.com

SFS Steel Formed Sections

SRL

Address: Southern Office & Laboratory, Holbrook House, Little Waldingfield, Sudbury, Suffolk, CO10 0TH, United Kingdom.

Tel: +44 (0) 1787 247595

Fax: +44 (0) 1787 248420

Email: srl@srltsl.com

bre

Address: BRE, Garston, Bucknalls Lane, Watford WD25 9XX, United Kingdom.

Tel: +44 (0) 1923 664200

Fax: +44 (0) 1923 664096

Email: construction@bre.co.uk

We at SFS aim to provide our customers with products that not only meet but exceed their expectations and to achieve this, quality processes are at the very core of our business. We prove time and again that we are a company worthy of the confidence placed in us by our customers.

SFS Steel Formed Sections

The Management of Steel Formed Sections Ltd recognises the importance of safety management and the implementation of safe systems of work in its workplaces and has compiled this Safety Statement in accordance with its legal duties under the Safety, Health and Welfare at Work. Act 2005.

In furtherance of our duty, we will comply with all relevant Statutory Instruments, Codes of Practice and other applicable legislation to ensure the safety, health and welfare of our employees and others affected by our activities.

This will be achieved by:

- Providing adequate resources to ensure suitable provision is made for the effective management of health and safety and to enable compliance with the requirements of legislation, statutory instruments and codes of practice.

- Ensuring that health and safety and/or best practice is considered in the planning, design, construction, operation and maintenance of all plant, machinery, equipment and places of work.

- Conducting a programme of risk assessment for all work activities undertaken by the company. Providing suitable and sufficient control measures that are identified in these assessments and making employees aware of these assessments in the prescribed manner.

- Communicating with employees on matters affecting health and safety to ensure methods of working are developed and compatible with the provisions of this policy and the individual capabilities of employees.

- Instructing, training and supervision of all employees.

- Maintaining a safe working environment and providing safe systems of work for all employees.

- Providing suitable welfare facilities and where necessary health screening.

SFS Steel Formed Sections

Health & Safety Policy

Every employee has a legal duty to co-operate with the management of SFS Ltd in meeting their statutory obligations.

Employees are advised that it is their duty to use the control measures as identified and provided for in the risk assessments and written procedures relevant to any work they undertake. Employees must not put their safety or the safety of others at risk through their reckless actions or malicious intent.

This policy will be regularly reviewed and monitored by SFS Ltd. Amendments' will be made as necessary taking into consideration new legislation and/or improved/new working practises.

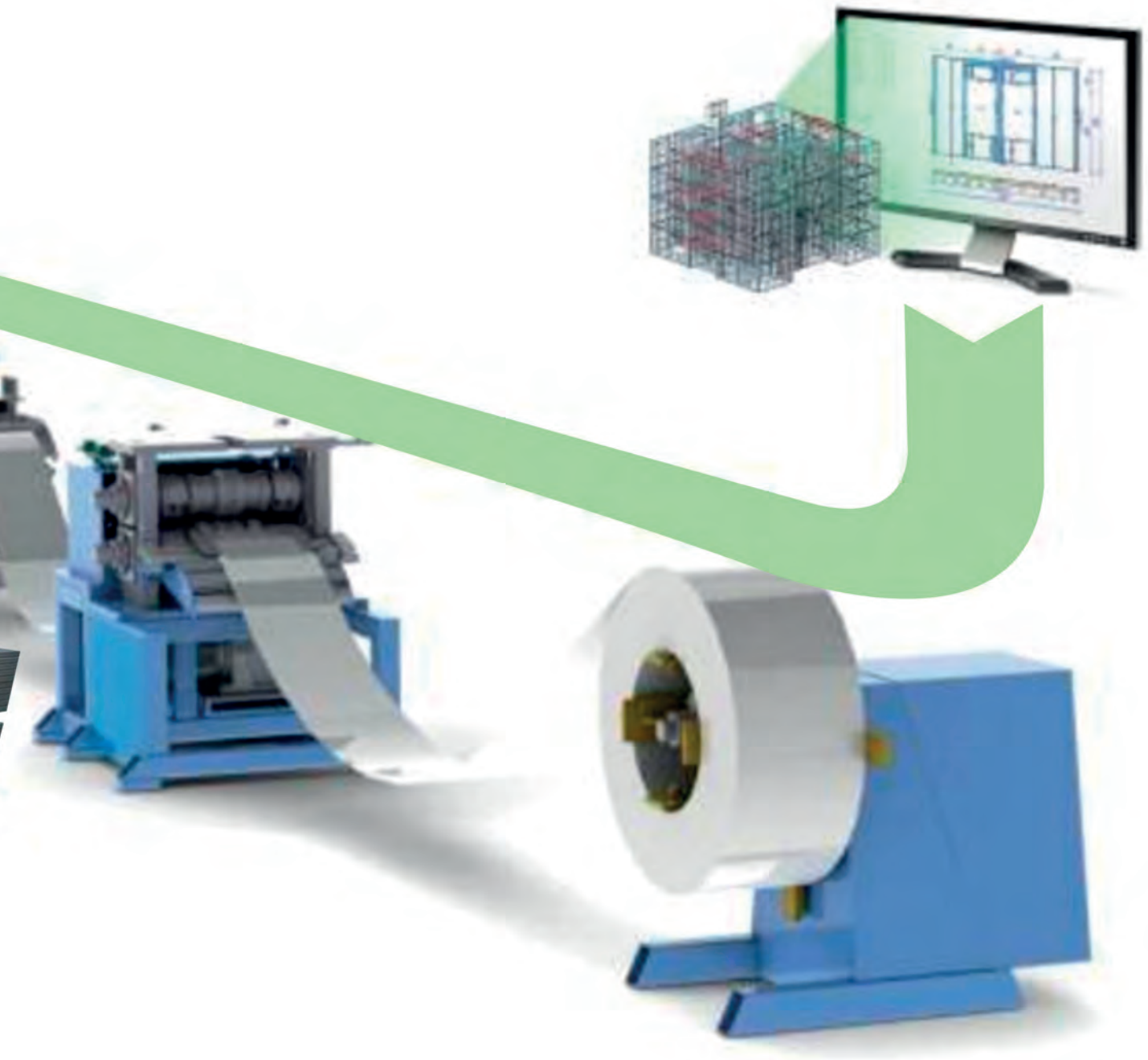
SFS ENVIRONMENT

Steel Formed Sections Ltd., are committed to providing quality products in a manner that ensures a safe and healthy workplace for our employees and minimizes our potential impact on the environment in accordance with relevant environmental legislation and other requirements to which we subscribe. We are committed to the prevention of pollution.

This will be achieved by:

- Integrate the consideration of environmental concerns and impacts into all of our decision making and activities,
- Promote environmental awareness among our employees and supply chain and encourage them to work in an environmentally responsible manner,
- Train, educate and inform our employees and supply chain about environmental issues that may affect their work,
- Reduce waste through re-use and recycling and by purchasing recycled, recyclable or re-furbished products and materials where these alternatives are available, economical and suitable,
- Promote efficient use of materials and resources throughout our facility including water, electricity, raw materials and other resources, particularly those that are non-renewable,
- Avoid unnecessary use of hazardous materials and products, seek substitutions when feasible, and take all reasonable steps to protect human health and the environment when such materials must be used, stored and disposed of,
- Purchase and use environmentally responsible products and services accordingly,
- Strive to continually improve our environmental performance and minimize the social impact and damage of activities by periodically reviewing our environmental policy in light of our current and planned future activities.

SFS ENVIRONMENT



Steel Formed Sections Ltd are BES 6001 Responsible Sourcing of Construction Products Approved

Our Certificate of Approval can be downloaded from :-

www.steelformedsections.com


bre

Certificate of Approval

Steel Formed Sections

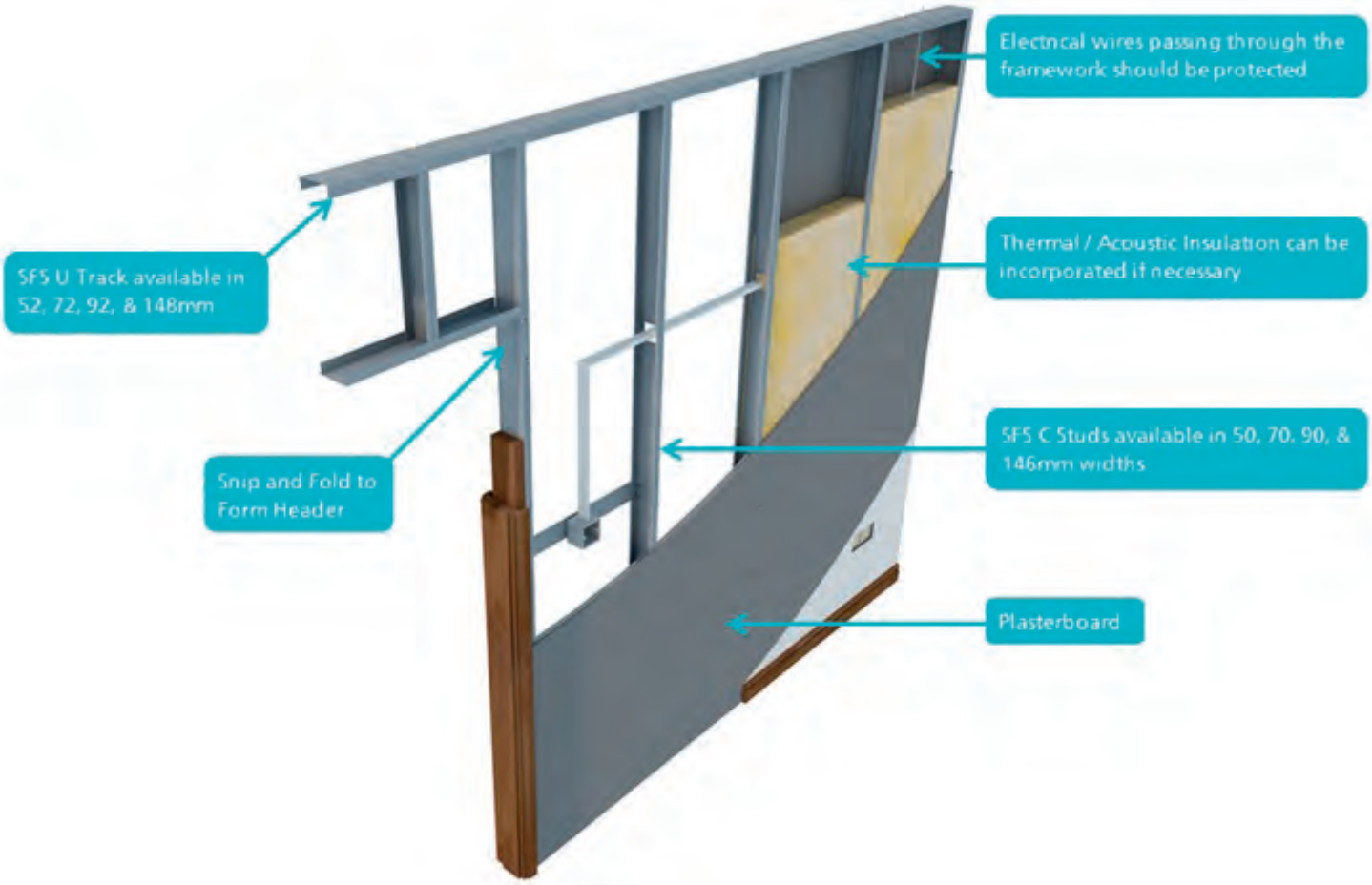
BES 6001

SFS PARTITIONING SYSTEM

SFS Steel Formed Sections

BACKGROUND

The SFS Partitioning System is suitable for use in commercial and domestic buildings where it is necessary to provide strong non load-bearing partitions. There are a wide range of partition thicknesses available for heights of up to 12m. The system is economical and can be erected easily. When installing the system it is advisable to use an electrically or battery operated screw gun. It is necessary to ensure that electrical cables that pass through the studs are protected by grommets.

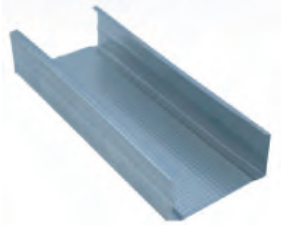


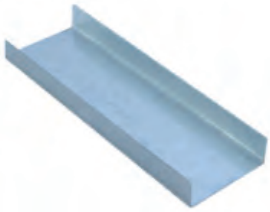
BENEFITS

- The metal system is accurate & solid, and will not move over time or with changes in temperature
- There are a wide range of stud widths from 50mm to 146mm to meet varying requirements
- It is a fast, clean system to erect that allows services to pass through easily
- All sections fit together easily and door frames are formed very simply

SFS PARTITIONING SYSTEM

SFS Steel Formed Sections

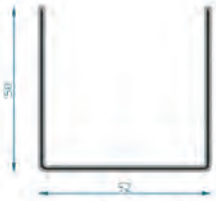
C Studs	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFS50	2400, 2700, 3000, 3600	0.50	10	100
	SFS70	2400, 2700, 3000, 3600, 4200	0.50	10	100
	SFS90	2700, 3000, 3600, 4200	0.50	10	100
	SFS146	3600, 4200, 5000, 6000	0.50	10	50
custom manufactured sizes available on request					

U Track STD (30)	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFST52	3000, 3600	0.50	10	100
	SFST72	3000, 3600	0.50	10	100
	SFST92	3000, 3600	0.50	10	100
	SFST148	3000, 3600	0.50	10	50
custom manufactured sizes available on request					

SFS PARTITIONING SYSTEM

SFS Steel Formed Sections

U Track Deep (50)	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSDT52	3000, 3600	0.60	10	100
	SFSDT72	3000, 3600	0.60	10	100
	SFSDT92	3000, 3600	0.60	10	100
	SFSDT148	3000, 3600	0.60	10	50
custom manufactured sizes available on request					



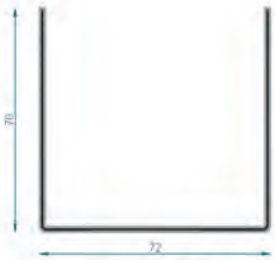
SFSDT52

SFSDT72

SFSDT92

SFSDT148

U Track Extra Deep (70)	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSEDT72	3000, 3600	0.70	10	50
	SFSEDT92	3000, 3600	0.70	10	50
	SFSEDT148	3000, 3600	0.70	10	50
custom manufactured sizes available on request					



SFSEDT72

SFSEDT92

SFSEDT148

SFS Steel Formed Sections

INSTALLATION GUIDELINES

FIXING OF FLOOR AND CEILING TRACKS

All tracks should be fixed to the floor and ceiling in the middle of the profile at 600mm centres with suitable fixings. For 92mm and 148mm wide profiles, we recommend two rows of suitable fixings at 600mm centres staggered by 300mm with each fixing 25mm in from the flange.

For heights greater than 4.2m or where deflection allowance is necessary, SFS U Track Deep and SFS U Track Extra Deep should be used.

A timber sole plate may be required on uneven floors or where the partition is constructed prior to screeding to bring the base of the track up to the finished screed height. When dealing with a newly laid concrete or floor screed a damp proof membrane should be used to protect the U track from moisture.

FIXING OF BOARDS

SINGLE LAYER BOARDING

Plasterboard should be fixed at 300mm maximum centres to the framework with the appropriate screw length. Joints should be staggered from one side of the partition to the other. Fixing centres should be maintained by using flat strap behind all horizontal board joints.

DOUBLE LAYER BOARDING

Inner layers can be fixed at 600mm centres but outer layers must be fixed at 300mm centres to the metal framework. The second layer should be positioned with all joints staggered in relation to the first layer assuming the studs are fixed at 600mm centres. Fixing centres should be maintained by using flat strap behind the outer most board for all horizontal board joints of the outer layer.

Please refer to table below for screw fixing lengths:-

SCREW FIXING LENGTHS	
Board Type	Fixing Length
1 x 12.5mm	25mm
1 x 15mm	25mm
2 x 12.5mm	25mm + 36mm
2 x 15mm	25mm + 42mm
1 x 12.5mm & 1 x 15mm	25mm + 42mm

SFS Steel Formed Sections

FIXING OF C STUDS

Please reference table below for guidance on Stud Centres depending on system type and height:-
(Based on limiting deflection of L/240 @ 200Pa)

SFS50 – 50mm C STUD CENTRES TABLE							
Board Type	Number of Layers	600mm Centres	600mm Boxed	400mm Centres	400mm Boxed	300mm Centres	300mm Boxed
12.5mm	1	2.5m	2.8m	2.9m	3.2m	3.1m	3.5m
15mm	1	2.8m	3.0m	3.1m	3.3m	3.3m	3.6m
12.5mm	2	3.4m	3.6m	3.6m	3.8m	3.8m	4.0m
15mm	2	3.7m	3.8m	3.9m	4.0m	4.0m	4.2m

SFS70 – 70mm C STUD CENTRES TABLE							
Board Type	Number of Layers	600mm Centres	600mm Boxed	400mm Centres	400mm Boxed	300mm Centres	300mm Boxed
12.5mm	1	3.6m	3.9m	4.0m	4.3m	4.3m	4.7m
15mm	1	3.8m	4.1m	4.2m	4.5m	4.5m	4.9m
12.5mm	2	4.6m	4.8m	4.9m	5.1m	5.1m	5.4m
15mm	2	4.9m	5.1m	5.1m	5.3m	5.3m	5.6m

SFS90 – 90mm C STUD CENTRES TABLE							
Board Type	Number of Layers	600mm Centres	600mm Boxed	400mm Centres	400mm Boxed	300mm Centres	300mm Boxed
12.5mm	1	4.5m	4.8m	4.9m	5.4m	5.3m	5.8m
15mm	1	4.7m	5.1m	5.2m	5.6m	5.5m	6.0m
12.5mm	2	5.7m	5.9m	6.0m	6.3m	6.2m	6.6m
15mm	2	5.9m	6.1m	6.2m	6.5m	6.4m	6.8m

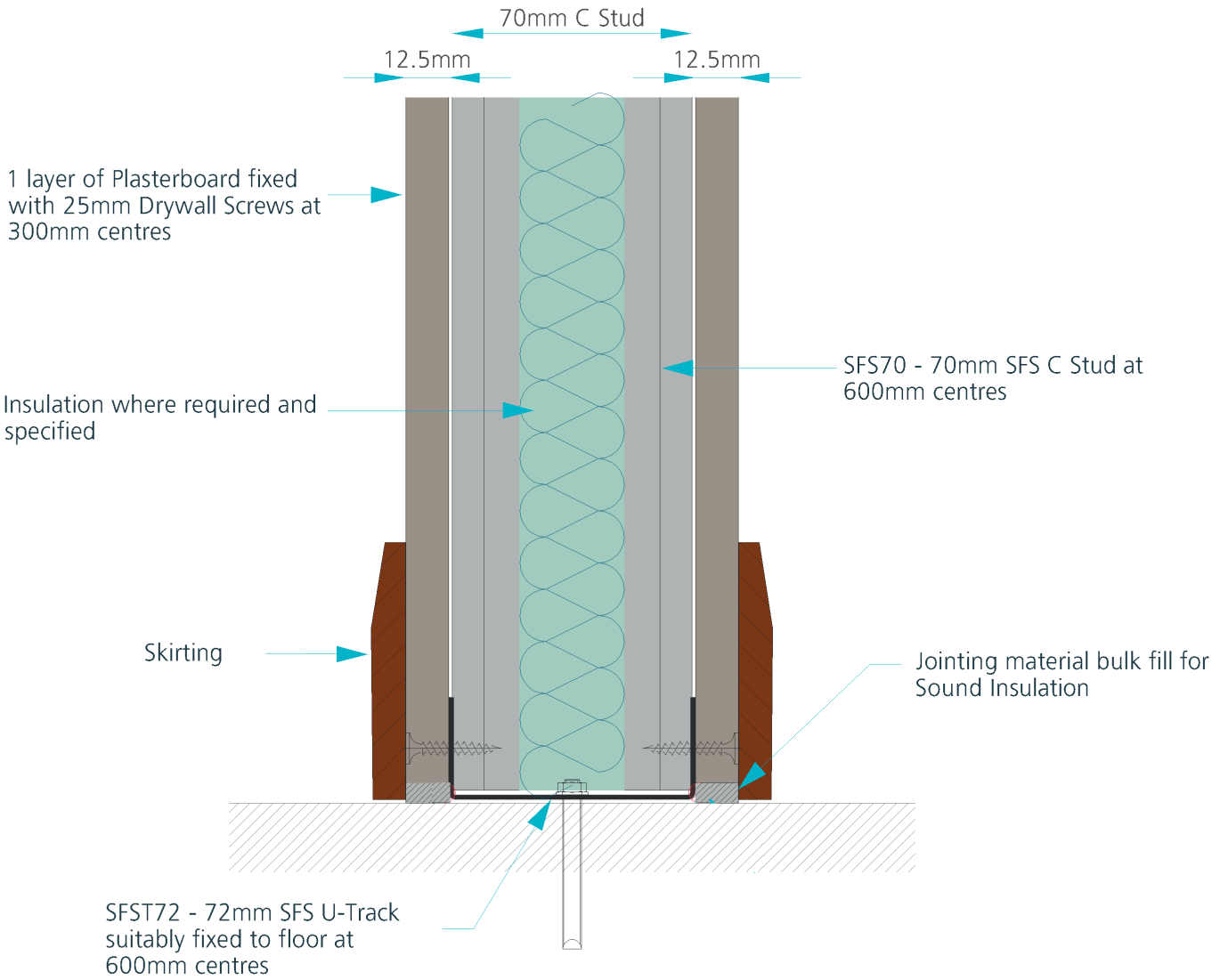
SFS146 – 146mm C STUD CENTRES TABLE							
Board Type	Number of Layers	600mm Centres	600mm Boxed	400mm Centres	400mm Boxed	300mm Centres	300mm Boxed
12.5mm	1	6.2m	6.8m	6.9m	7.6m	7.5m	8.3m
15mm	1	6.5m	7.0m	7.2m	7.8m	7.7m	8.4m
12.5mm	2	7.6m	8.0m	8.1m	8.6m	8.5m	9.1m
15mm	2	7.9m	8.2m	8.3m	8.8m	8.7m	9.3m

STANDARD FIXING DETAILS

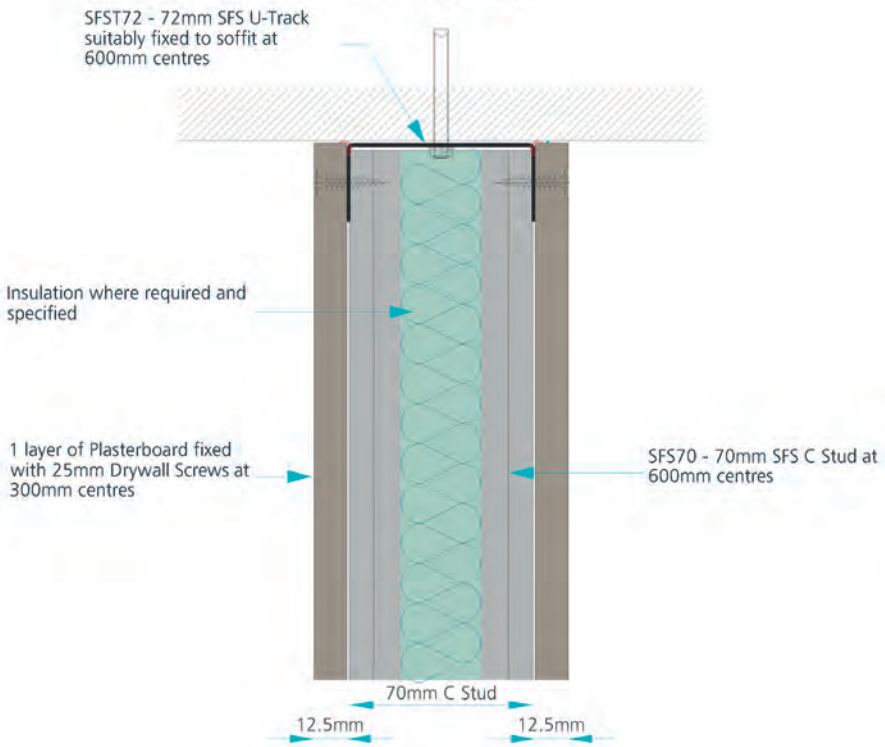
The following details typically represent a standard SFS70 – 70mm C Stud Partition. It is therefore limited in its capacity to convey all the information, details & specification necessary to comply with Building Regulations or to achieve specific requirements. Such details should always be confirmed by your designer/architect.

All standard details for 70mm, 90mm and 146mm SFS C Stud systems are available for download from www.steelformedsections.ie

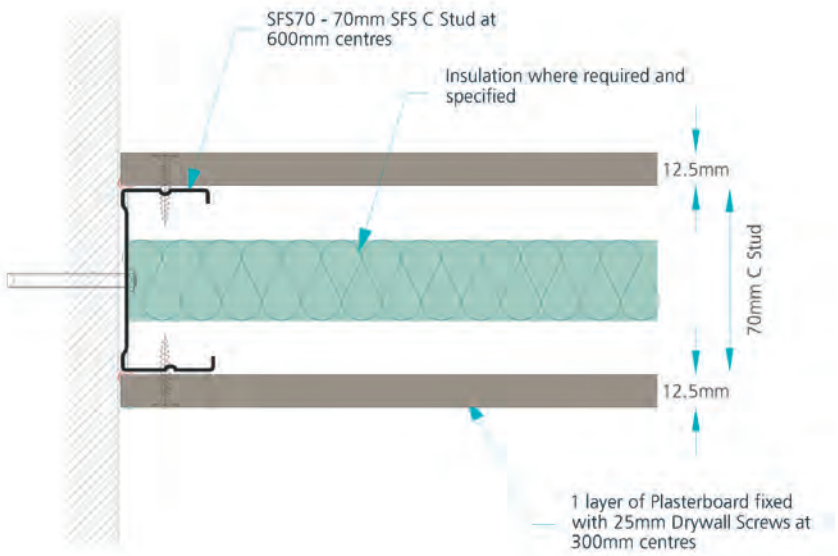
Typical 70mm C Stud Base Detail



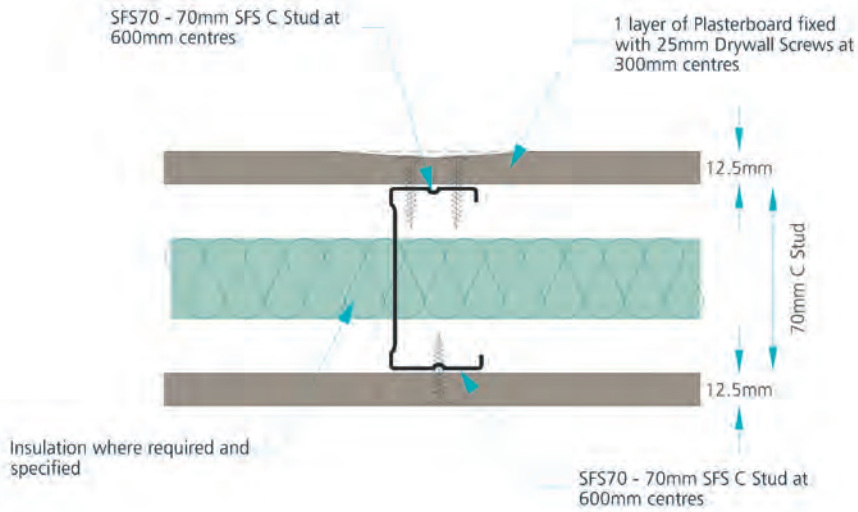
Typical 70mm C Stud Head Detail



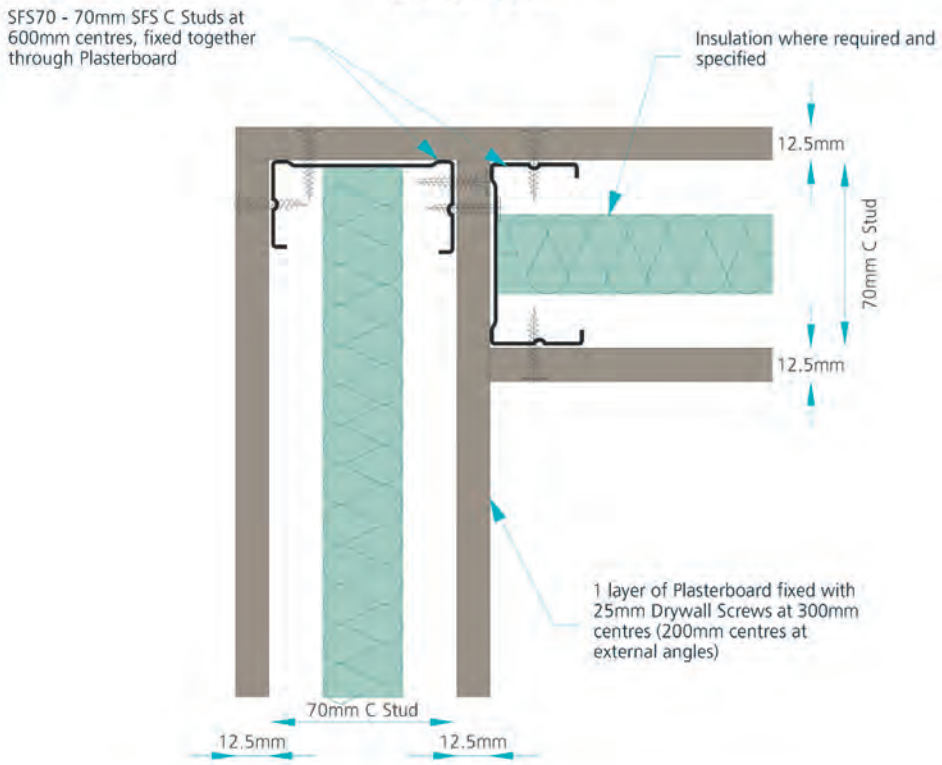
Typical 70mm C Stud Wall Abutment Detail



Typical 70mm Intermediate Stud Detail



Typical 70mm C Stud Corner Detail



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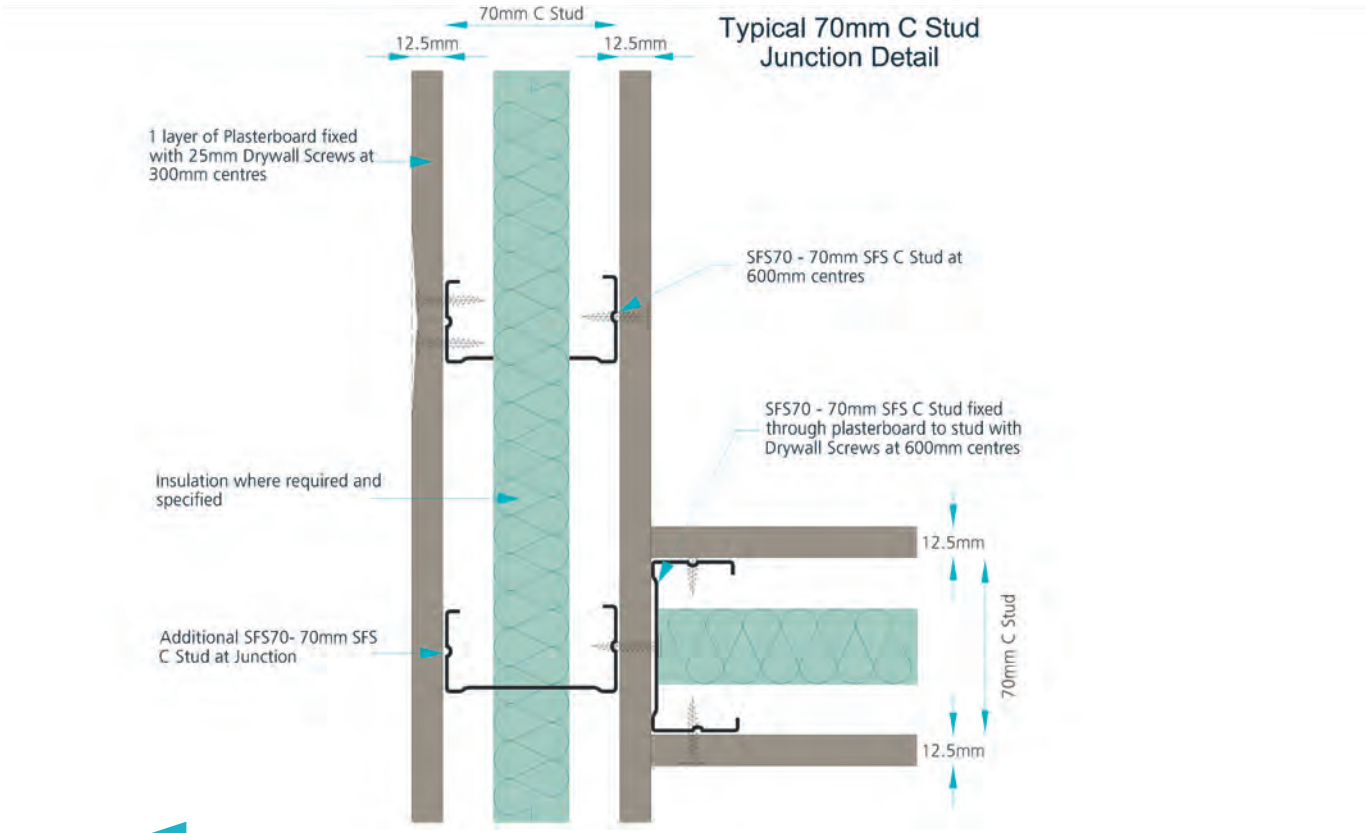
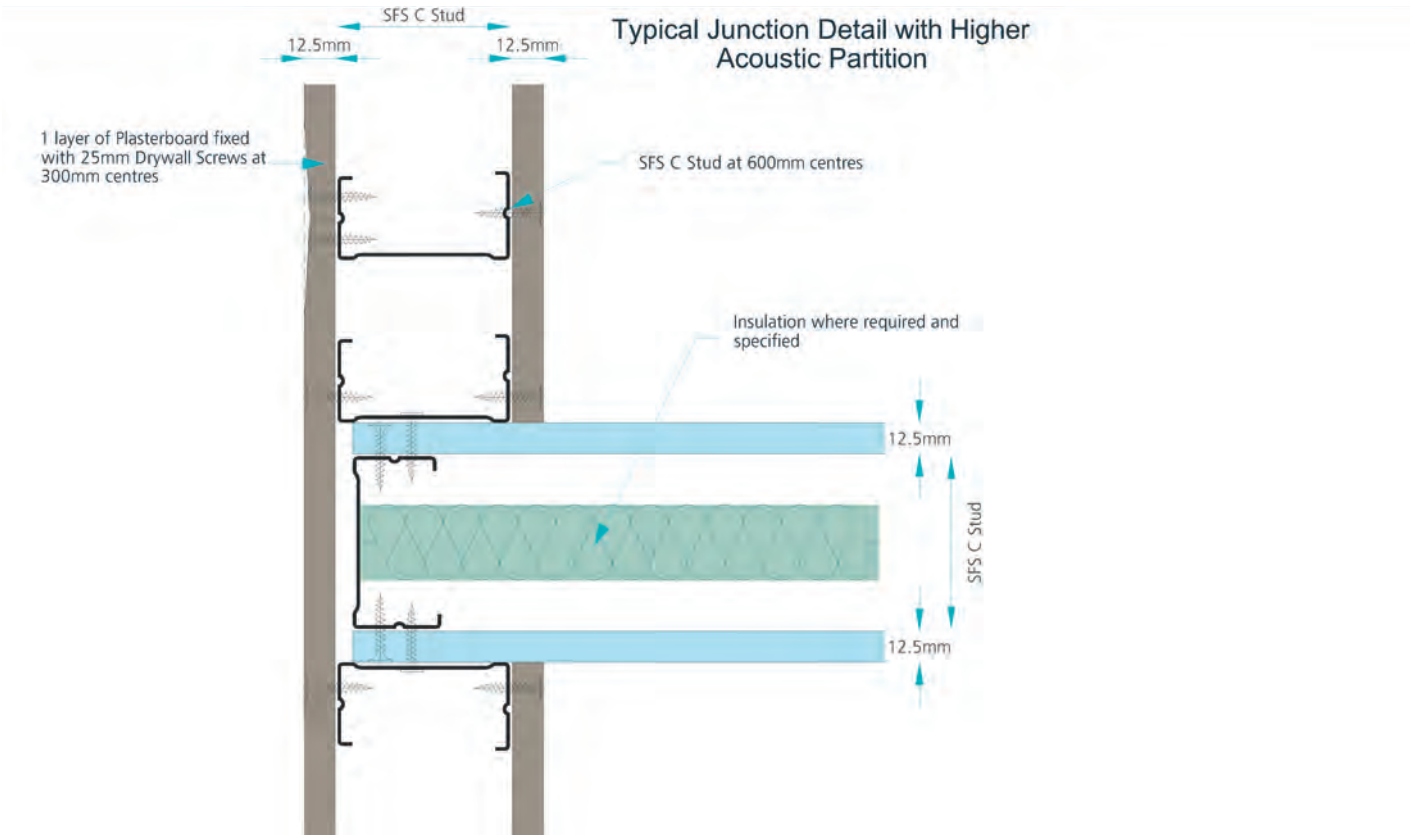
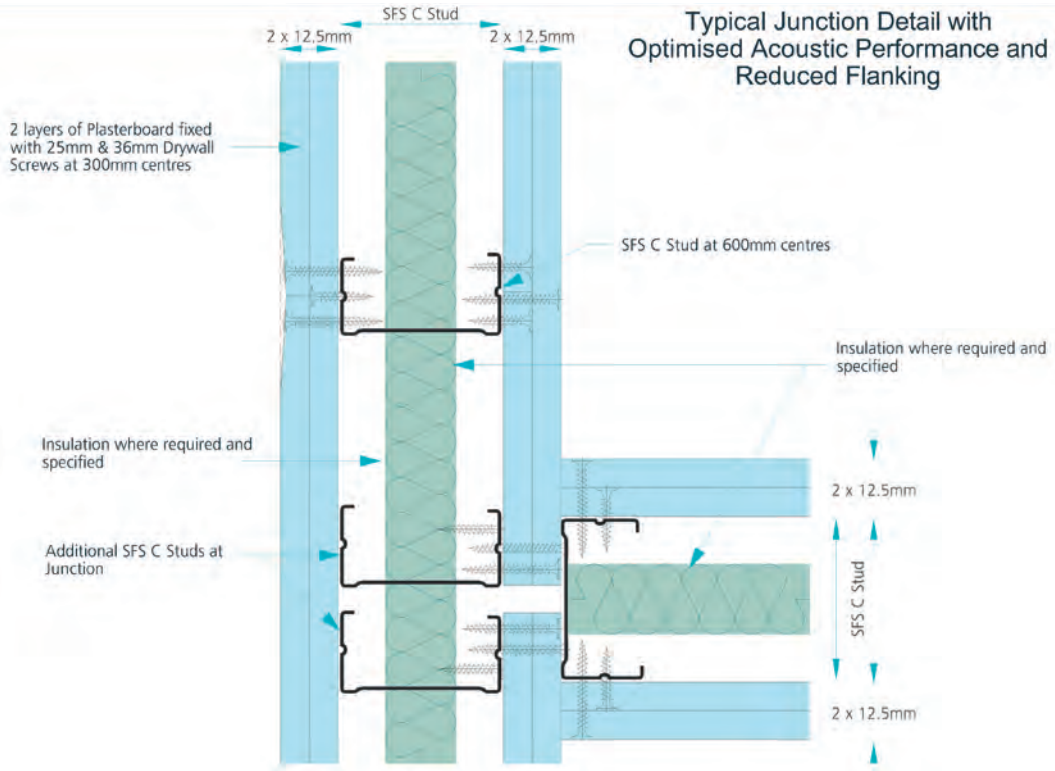
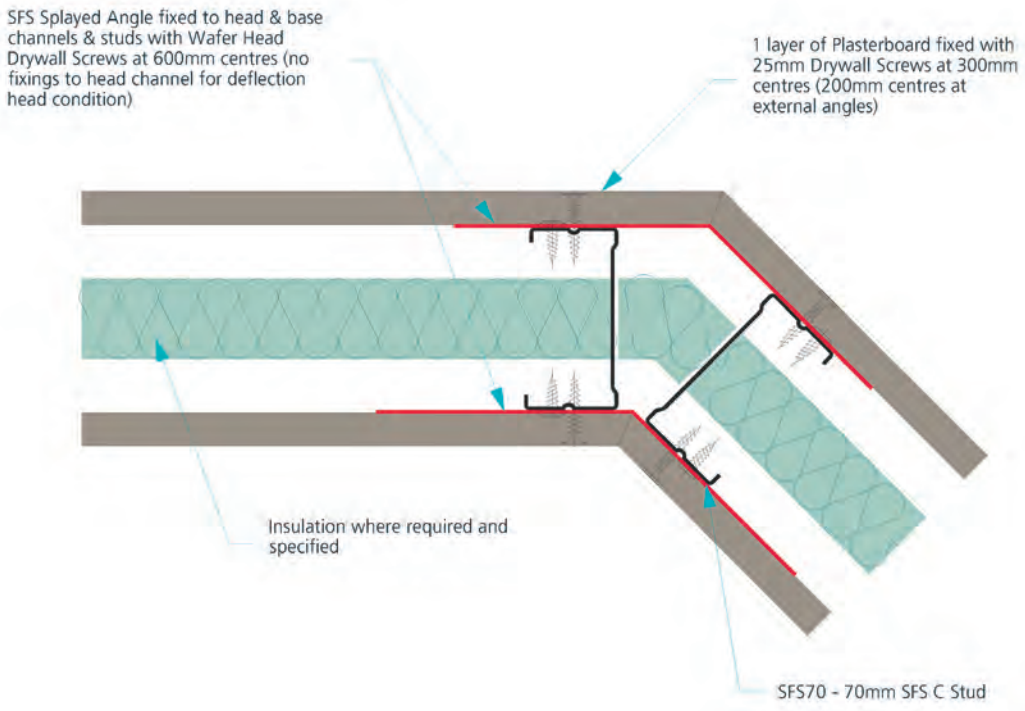




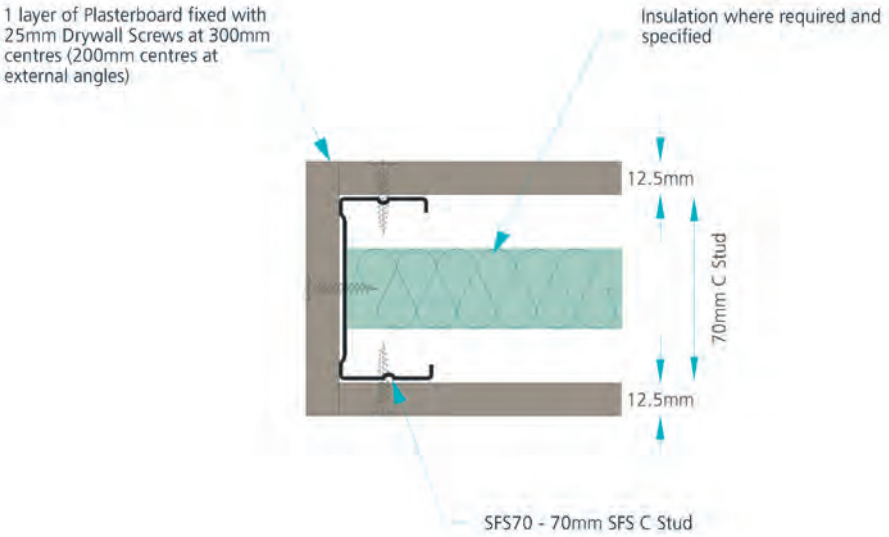
Typical Junction Detail with Optimised Acoustic Performance and Reduced Flanking



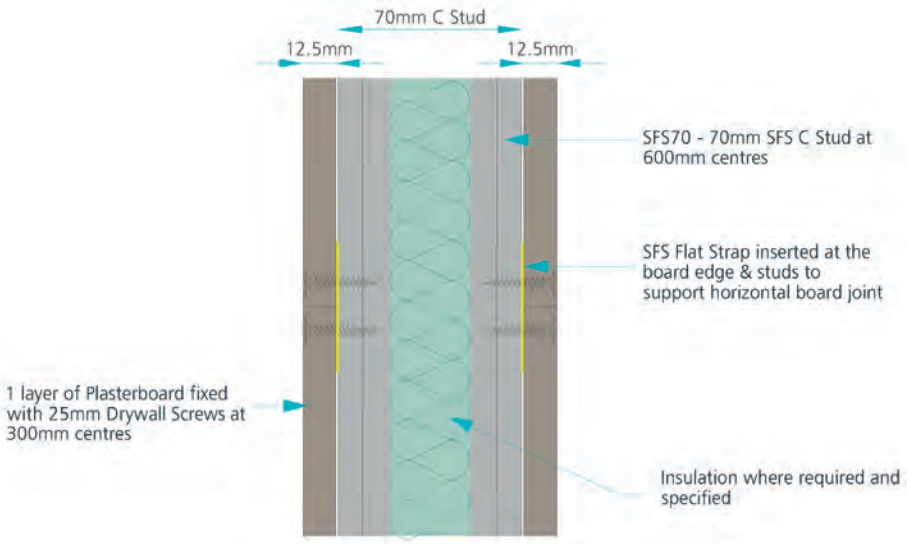
Typical 70mm C Stud Splayed Angle Detail



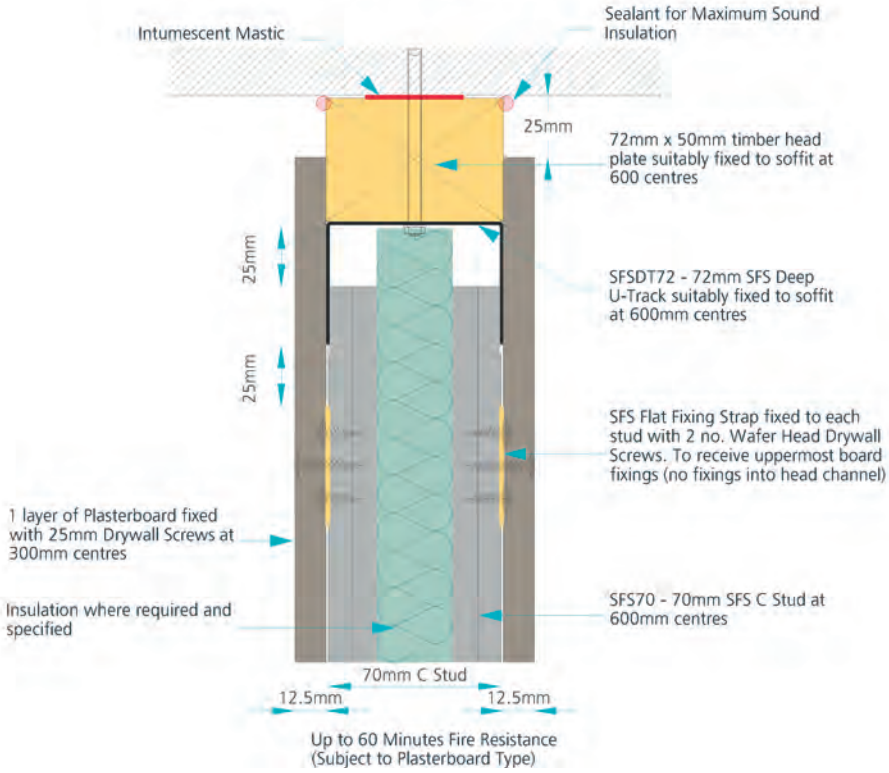
Typical 70mm C Stud Stop End Detail



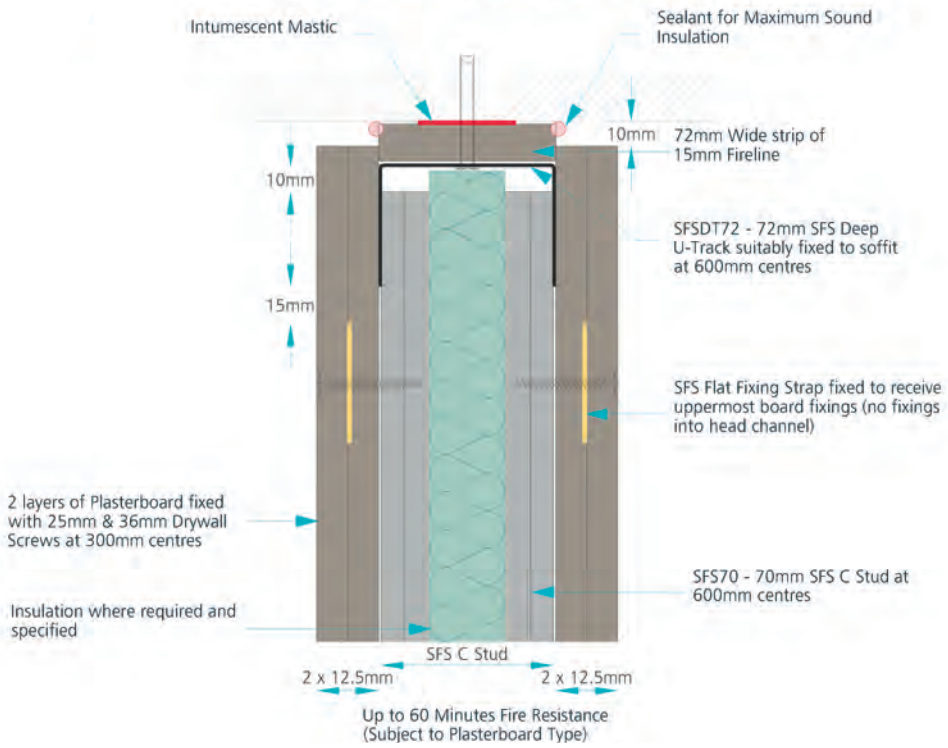
Typical 70mm C Stud Horizontal Board Joint Detail



Typical 70mm C Stud 25mm Deflection Head Detail

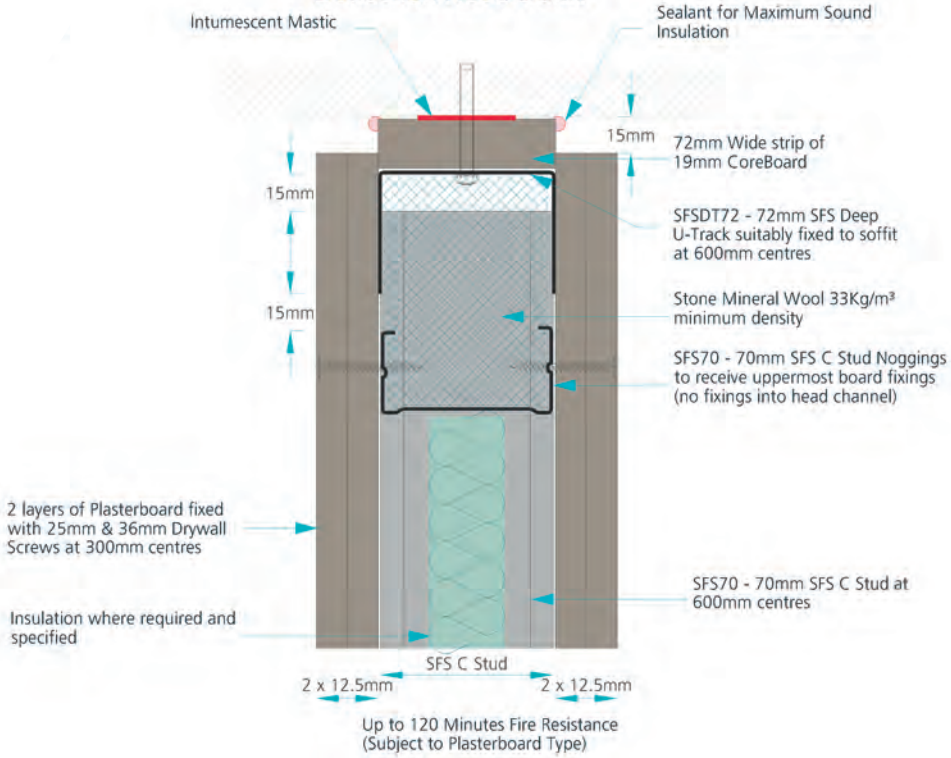


Typical 10mm Downward Movement Deflection Head Detail

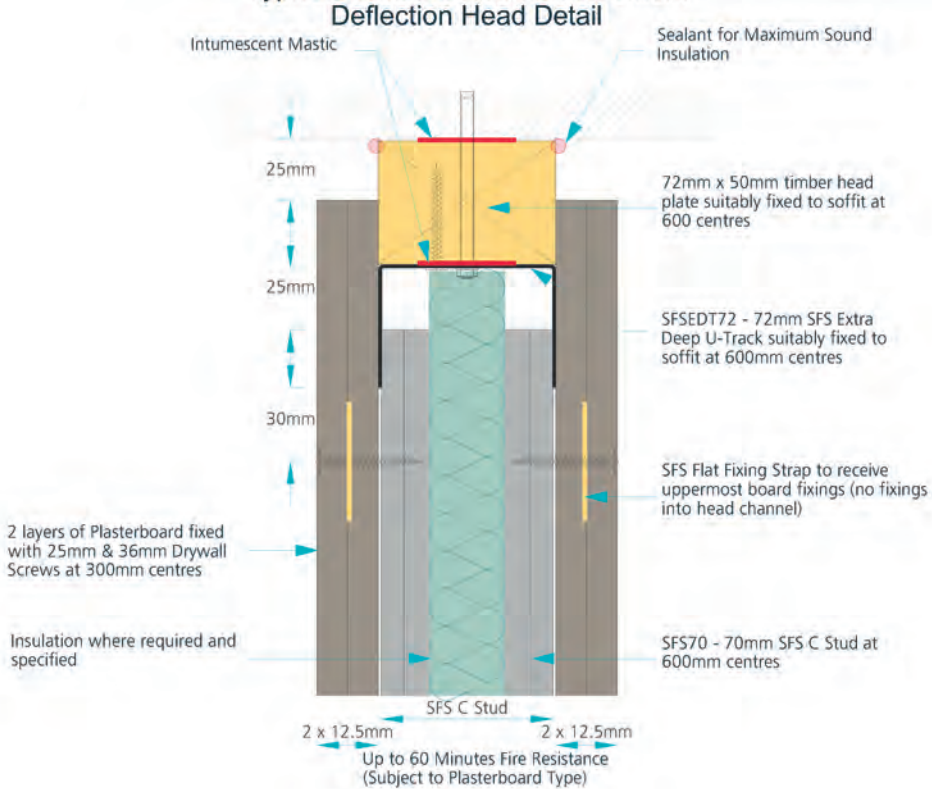


SFS Steel Formed Sections

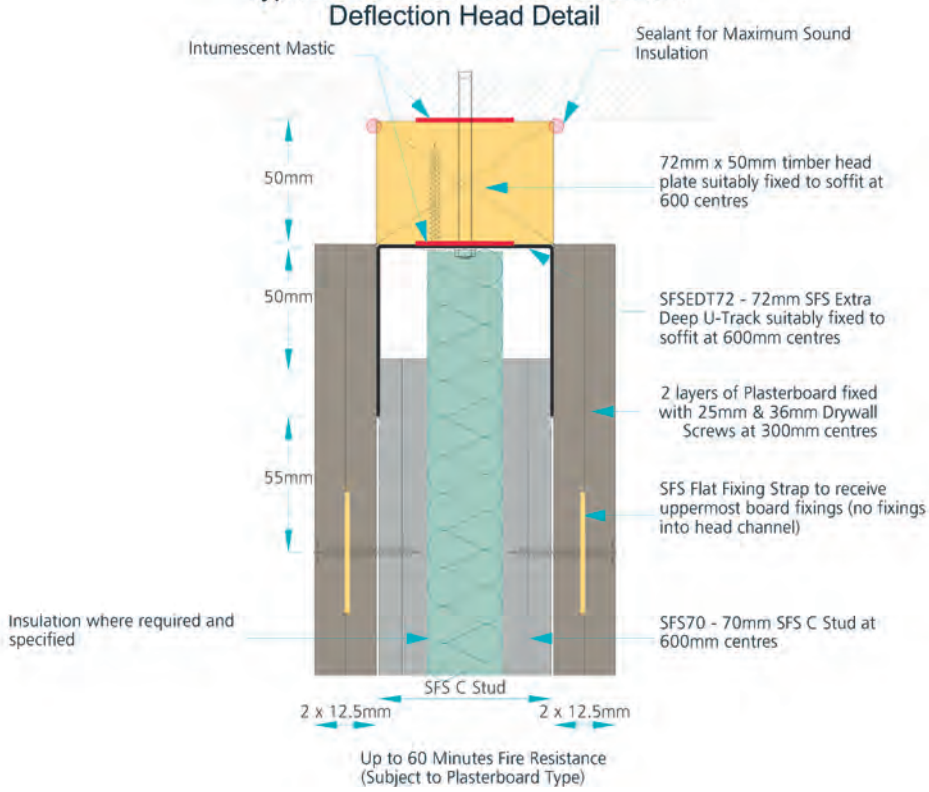
Typical 10mm Downward Movement Deflection Head Detail



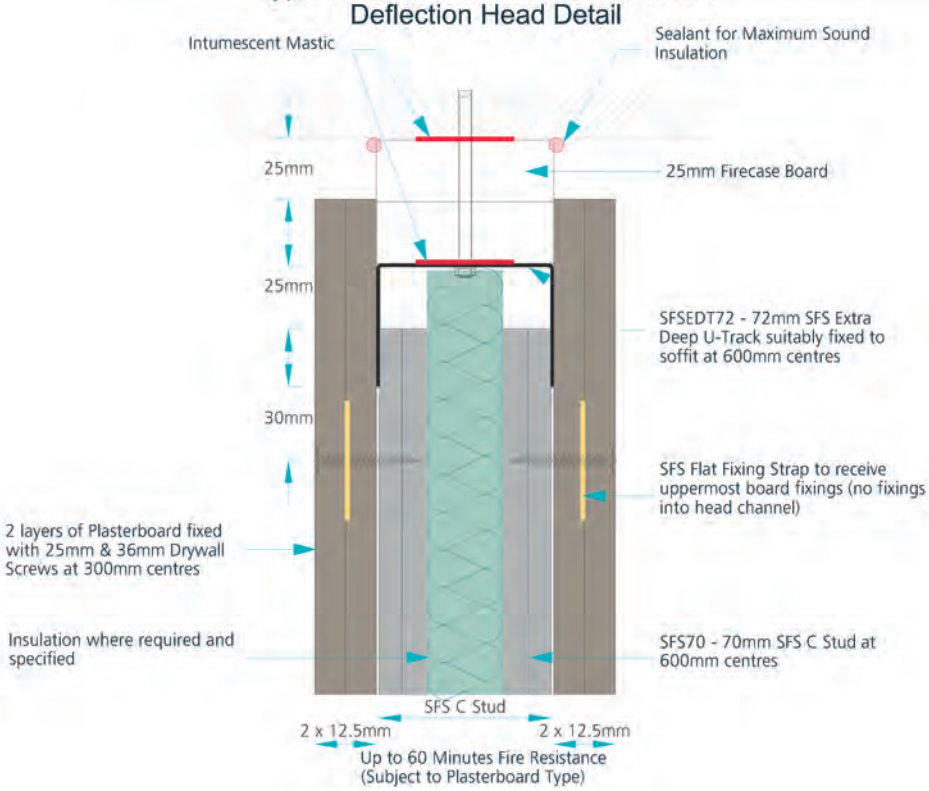
Typical 25mm Downward Movement Deflection Head Detail



Typical 50mm Downward Movement Deflection Head Detail

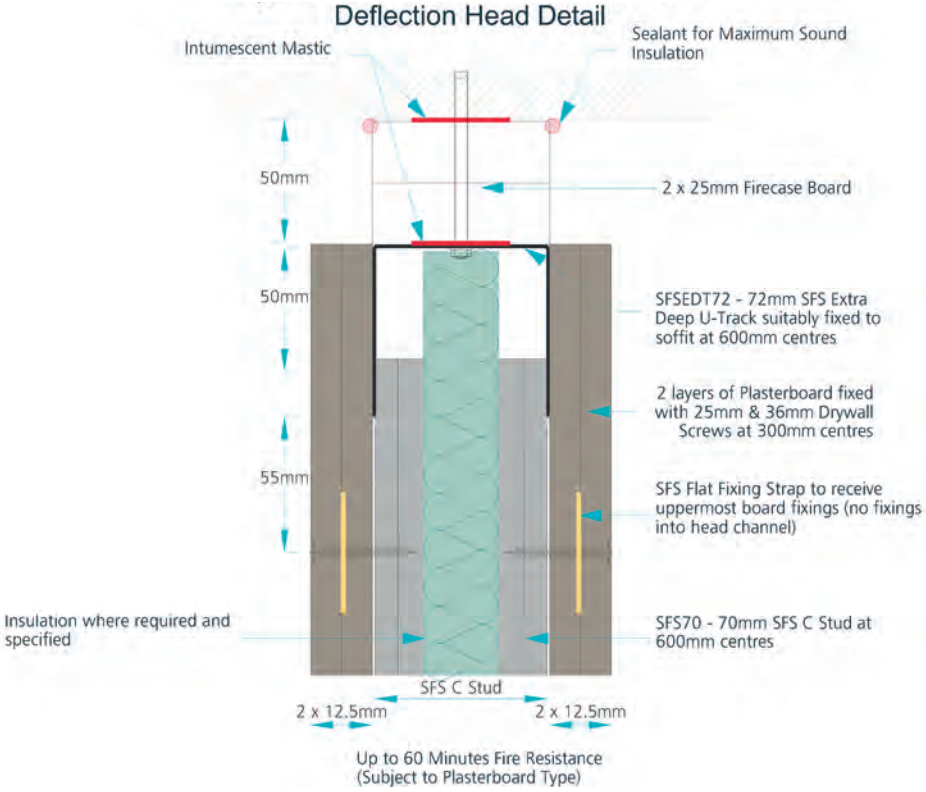


Typical 25mm Plus / Minus Movement Deflection Head Detail

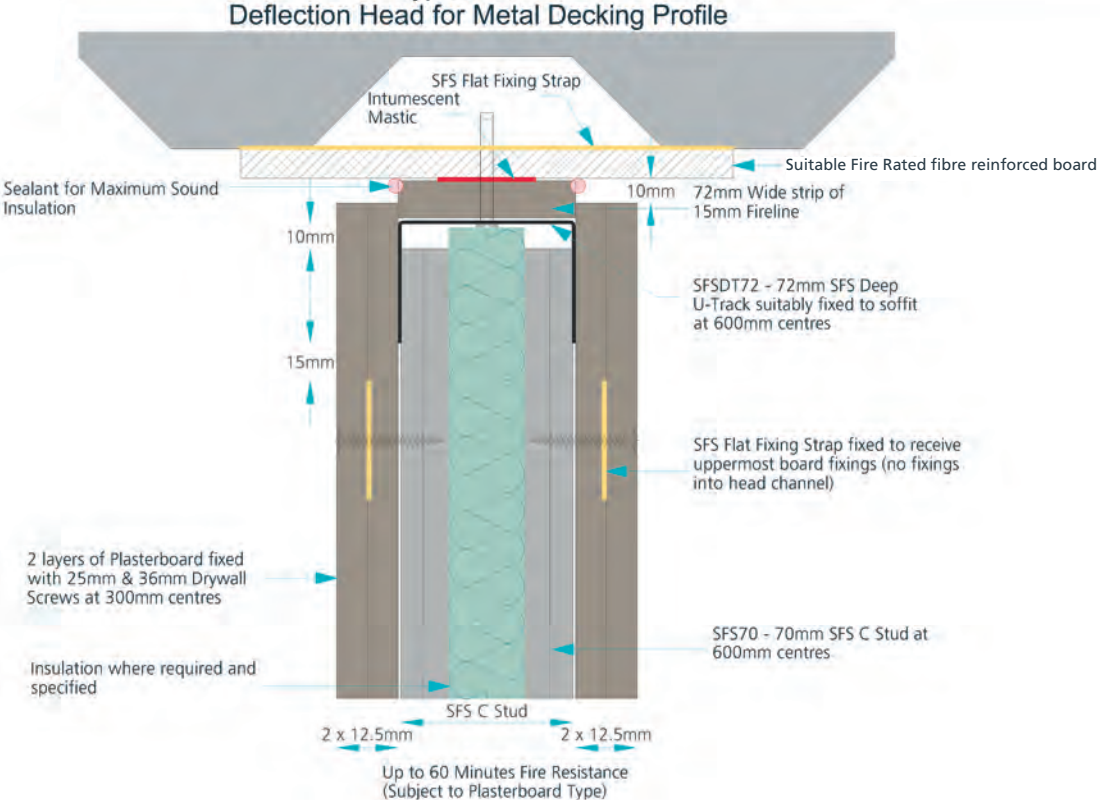


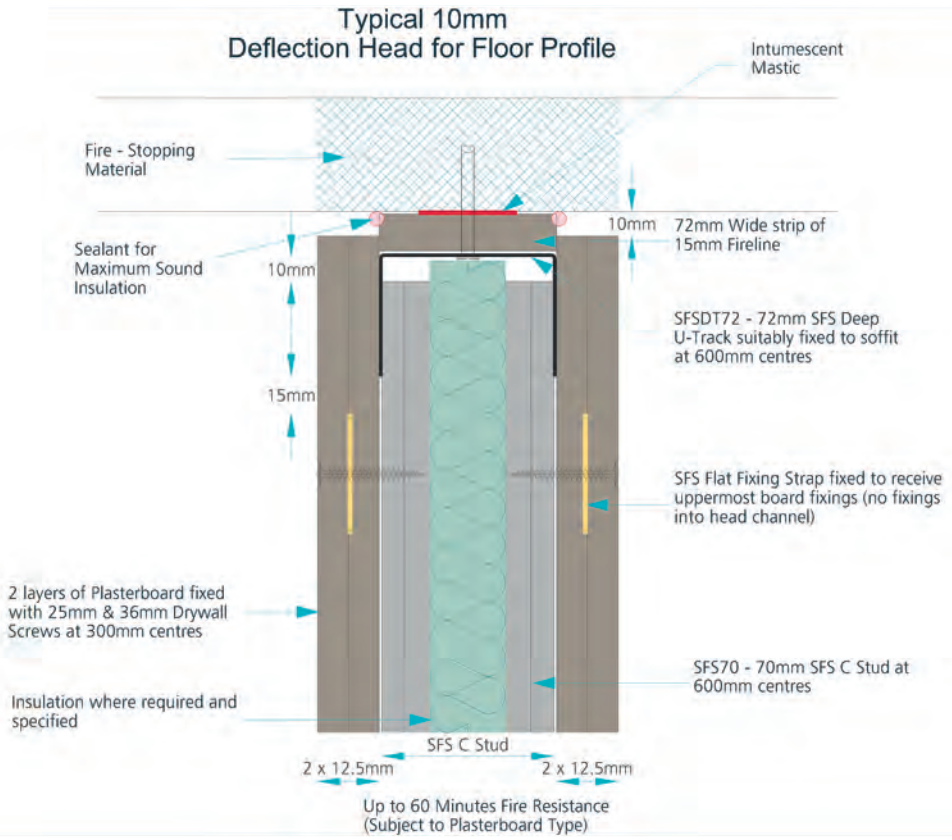
SFS Steel Formed Sections

Typical 50mm Downward only Deflection Head Detail



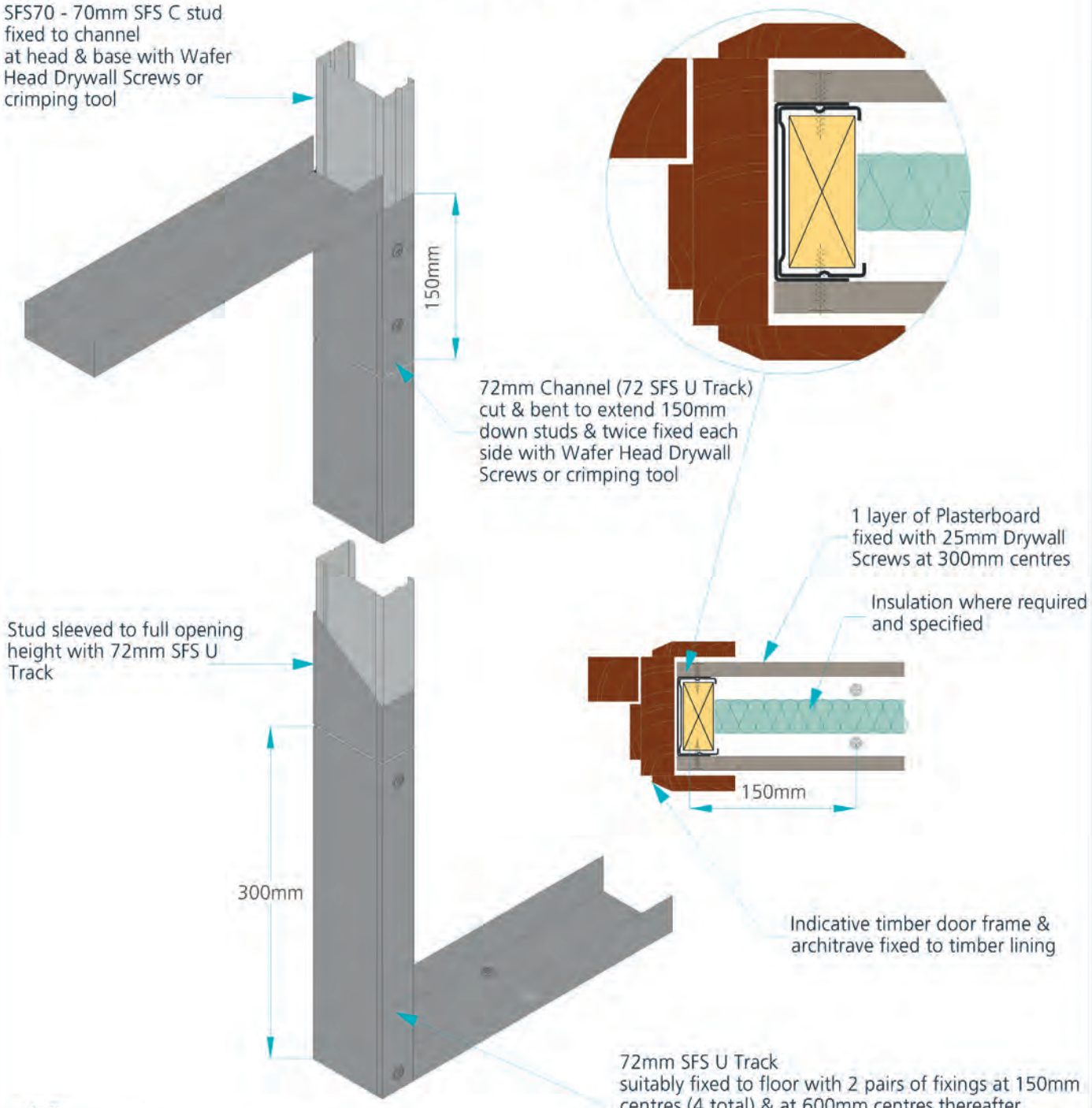
Typical 10mm Deflection Head for Metal Decking Profile



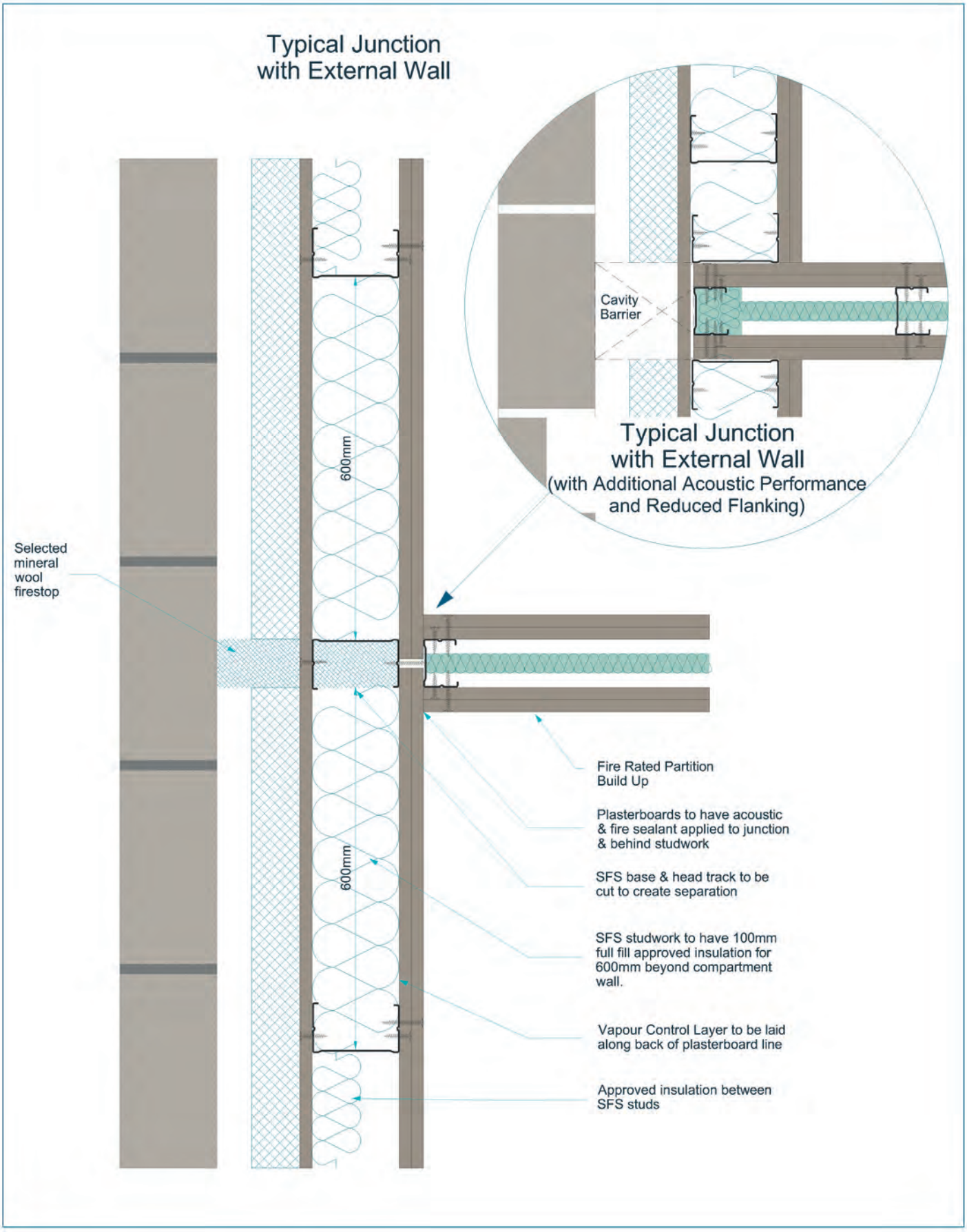

Typical 10mm
Deflection Head for Floor Profile
Intumescent Mastic
Fire - Stopping Material
Sealant for Maximum Sound Insulation
10mm
10mm
72mm Wide strip of 15mm Fireline
SFSDT72 - 72mm SFS Deep U-Track suitably fixed to soffit at 600mm centres
15mm
SFS Flat Fixing Strap fixed to receive uppermost board fixings (no fixings into head channel)
2 layers of Plasterboard fixed with 25mm & 36mm Drywall Screws at 300mm centres
SFS70 - 70mm SFS C Stud at 600mm centres
Insulation where required and specified
SFS C Stud
2 x 12.5mm
2 x 12.5mm
Up to 60 Minutes Fire Resistance
(Subject to Plasterboard Type)

SFS Steel Formed Sections

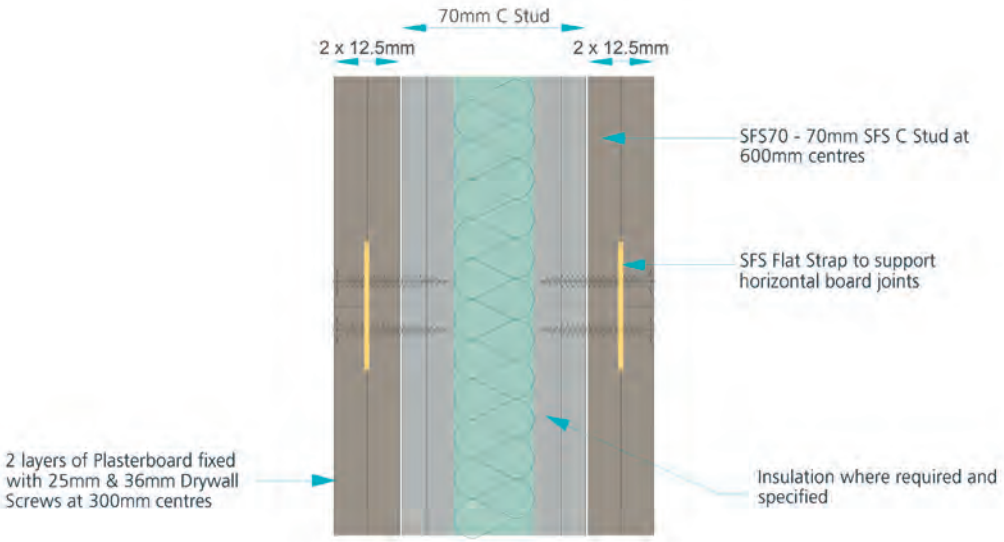
Typical 70mm C Stud Heavy & Severe Duty Door Jamb Detail



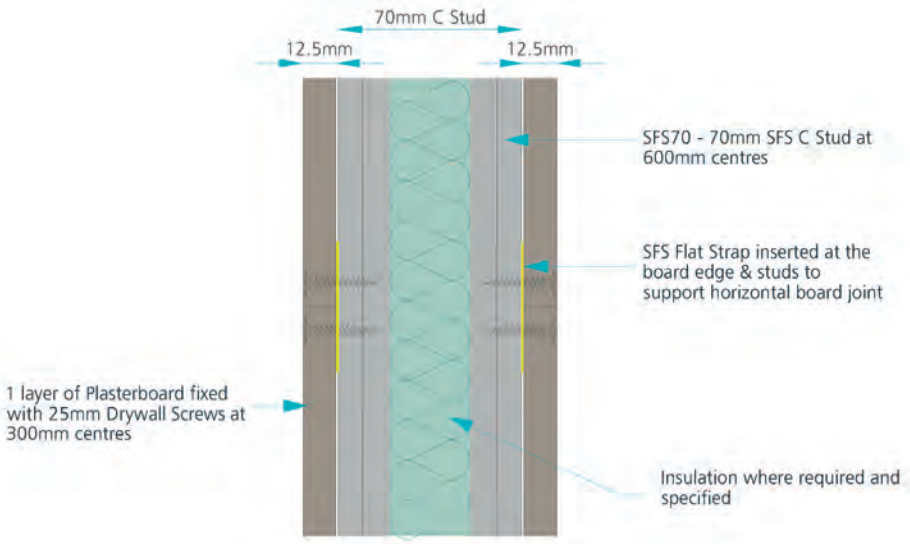
N.B.
The door manufacturer or installer should be consulted about their recommendations in relation to this detail


Typical Junction
with External Wall
Cavity
Barrier
Typical Junction
with External Wall
(with Additional Acoustic Performance
and Reduced Flanking)
600mm
600mm
Selected
mineral
wool
firestop
Fire Rated Partition
Build Up
Plasterboards to have acoustic
& fire sealant applied to junction
& behind studwork
SFS base & head track to be
cut to create separation
SFS studwork to have 100mm
full fill approved insulation for
600mm beyond compartment
wall.
Vapour Control Layer to be laid
along back of plasterboard line
Approved insulation between
SFS studs

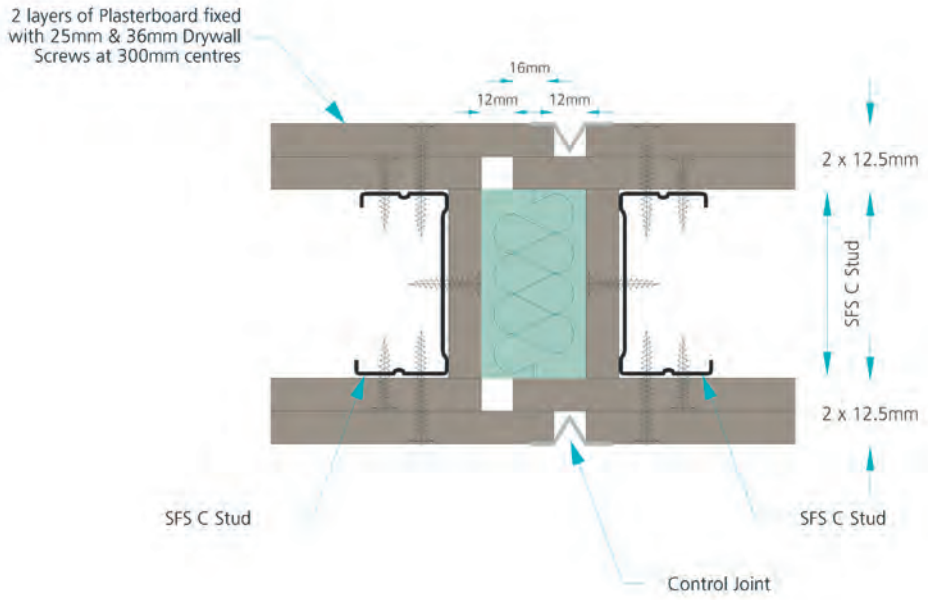
Typical 70mm C Stud Horizontal Double Board Joint Detail



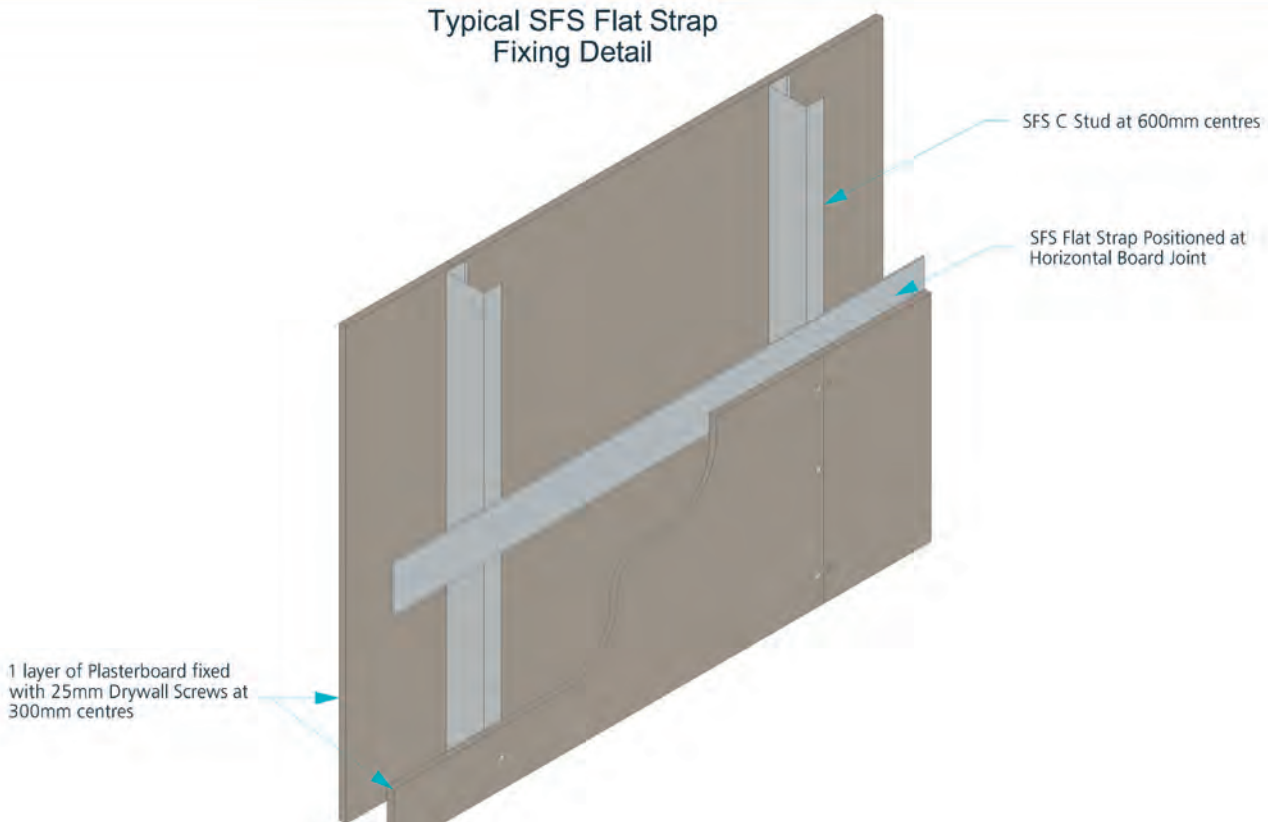
Typical 70mm C Stud Horizontal Board Joint Detail

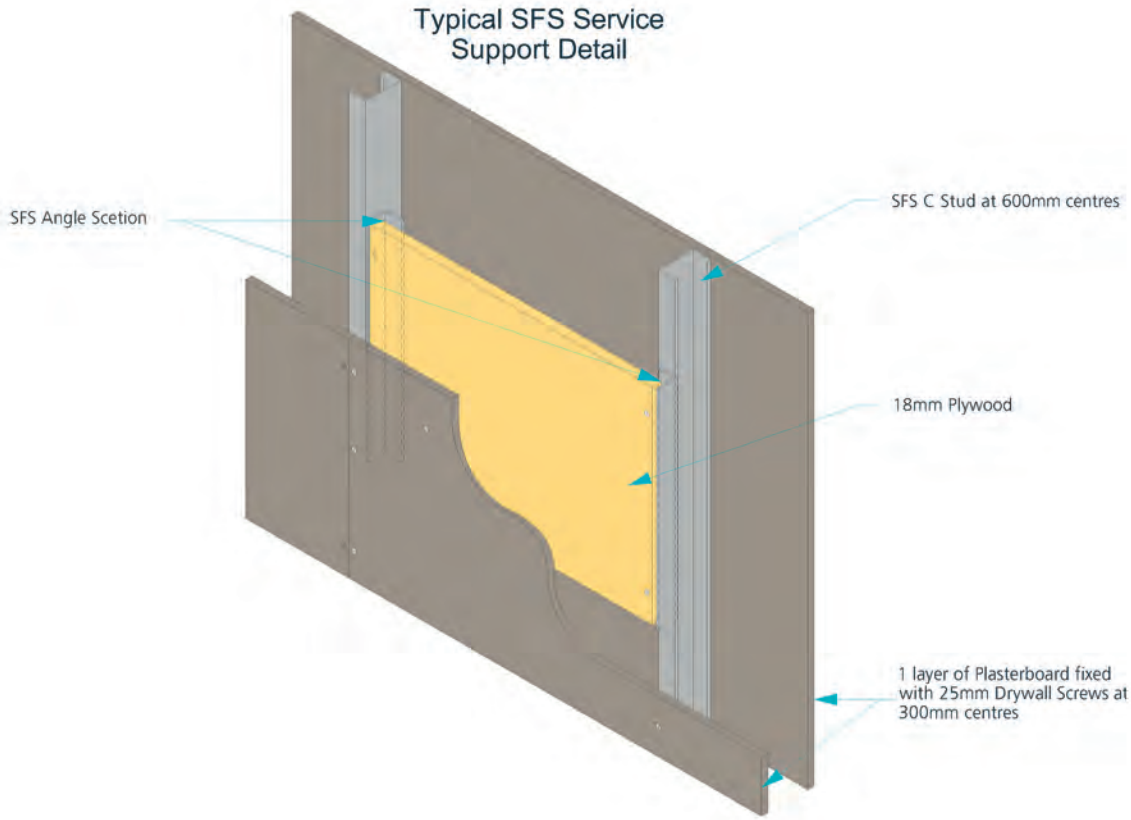


Typical Control Joint

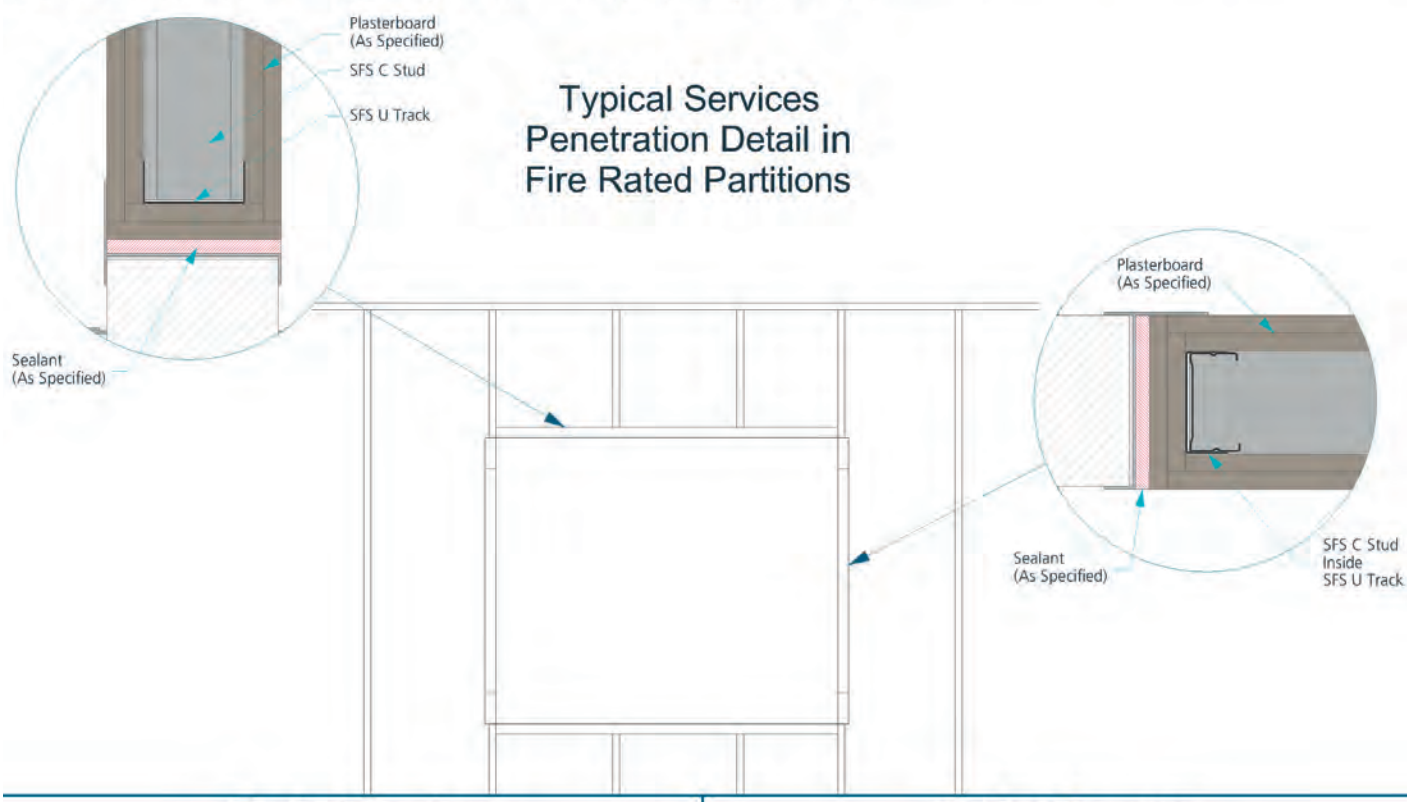


Typical SFS Flat Strap Fixing Detail

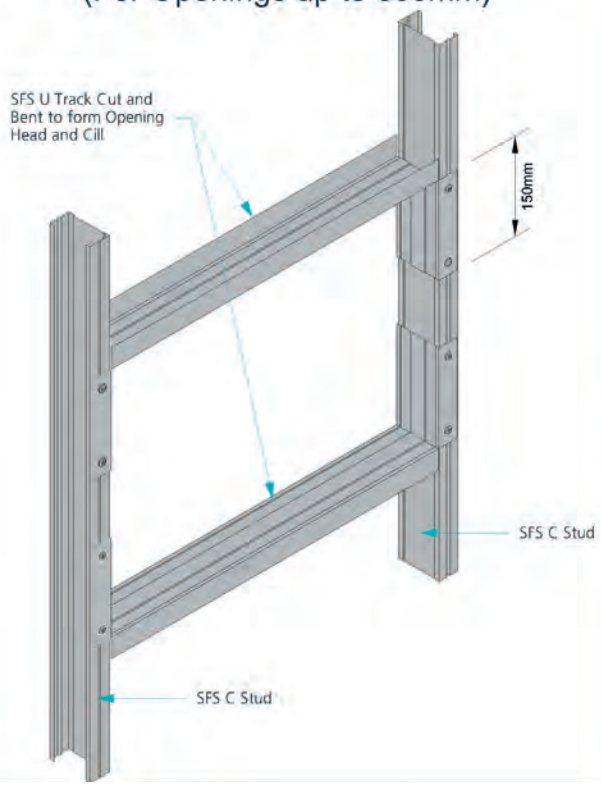



Typical SFS Service
Support Detail
SFS Angle Scetion
SFS C Stud at 600mm centres
18mm Plywood
1 layer of Plasterboard fixed
with 25mm Drywall Screws at
300mm centres

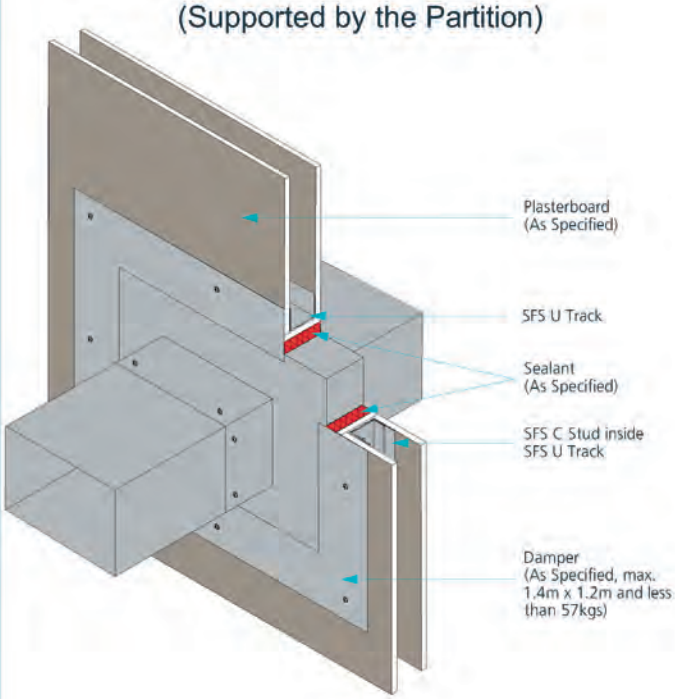
Typical Services Penetration Detail in Fire Rated Partitions



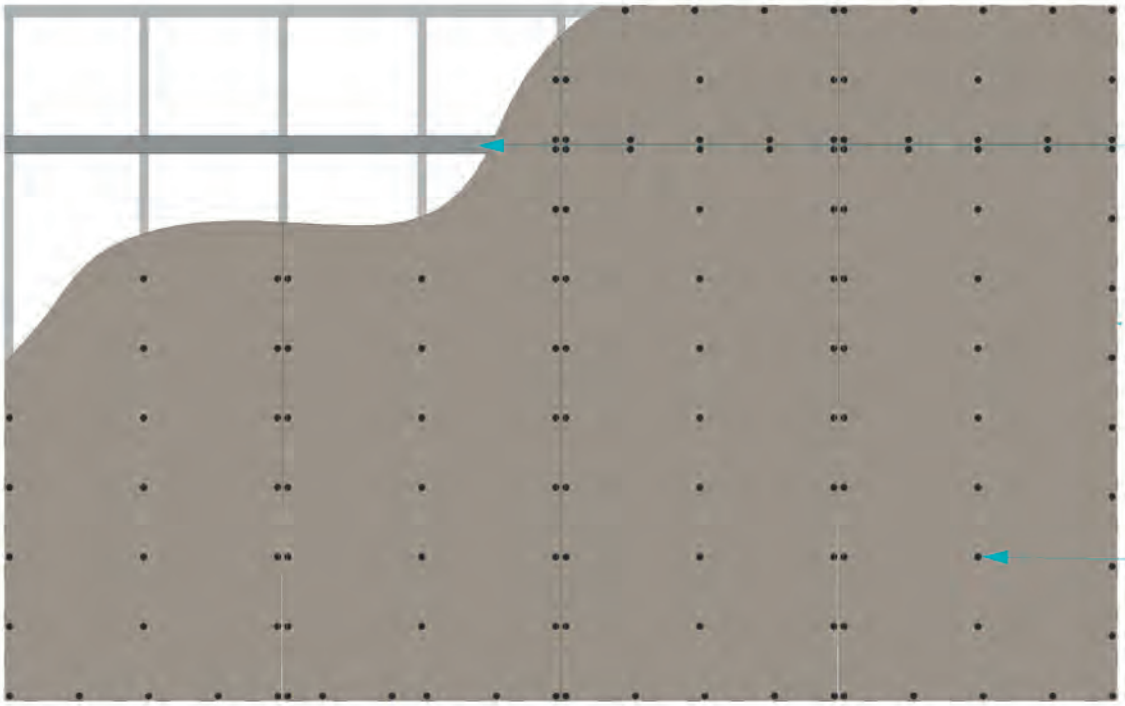
Typical Services Penetration Detail (For Openings up to 600mm)



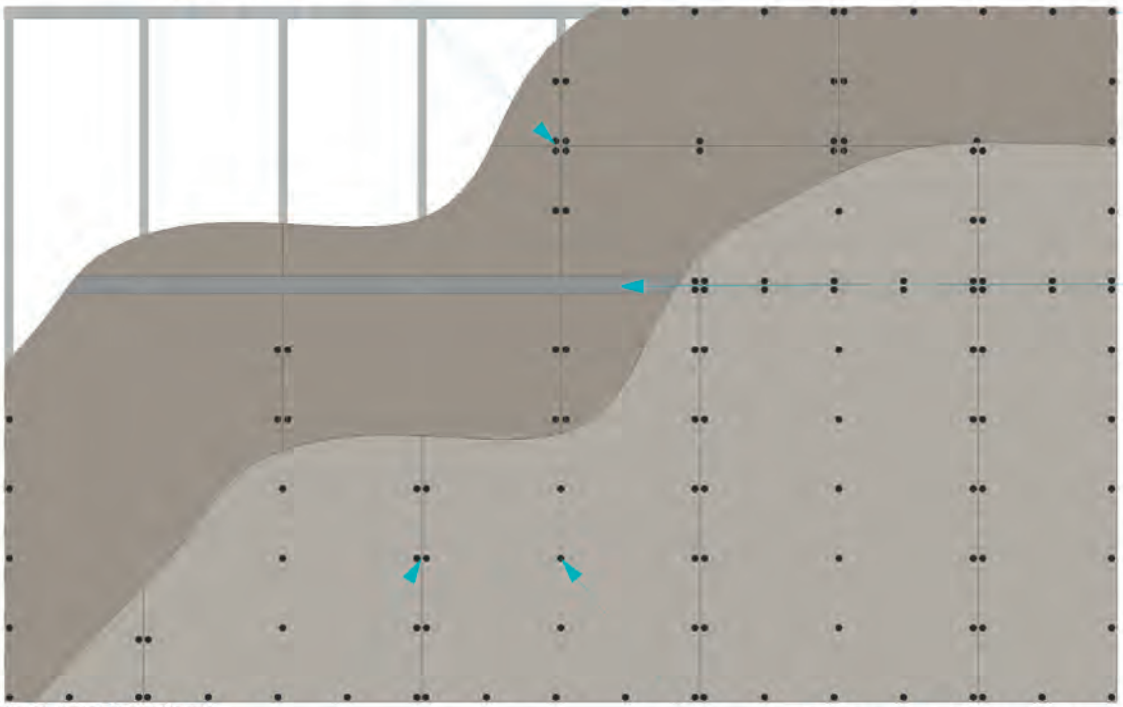
Typical Damper Penetration Detail (Supported by the Partition)



Typical Single Board Layout



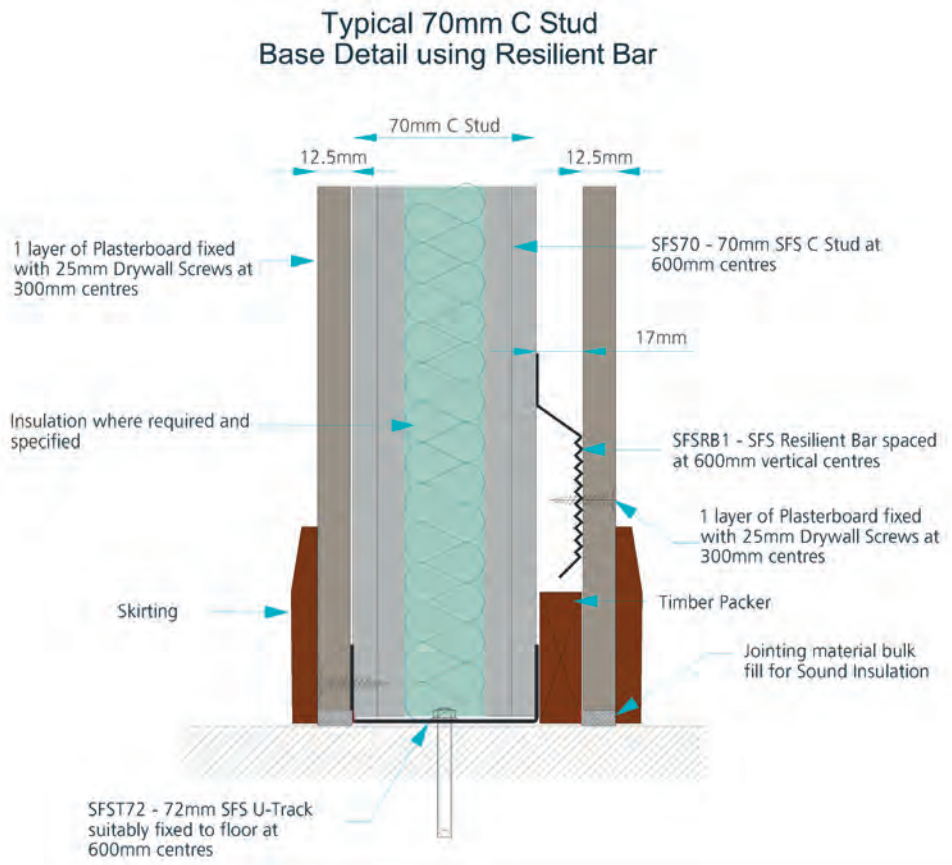
Typical Double Board Layout



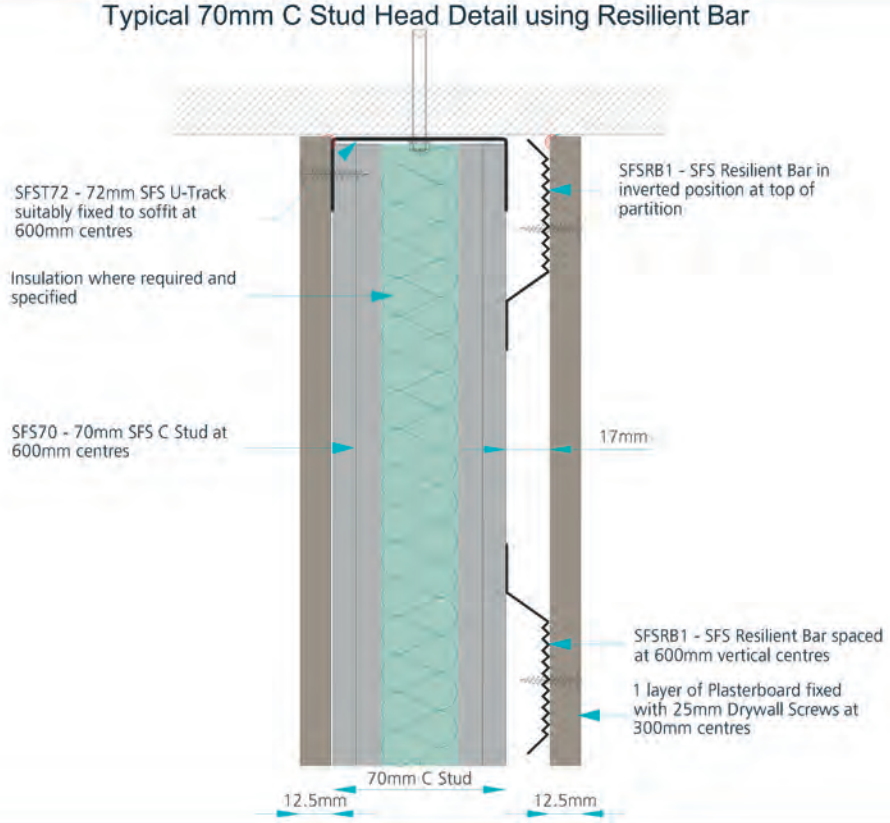
SFS ACOUSTIC PARTITION SYSTEMS

Acoustic performance can typically be improved greatly by the selection of specific acoustic wallboards and insulation however the incorporation of SFS Resilient Bars can also further enhance acoustic performance.

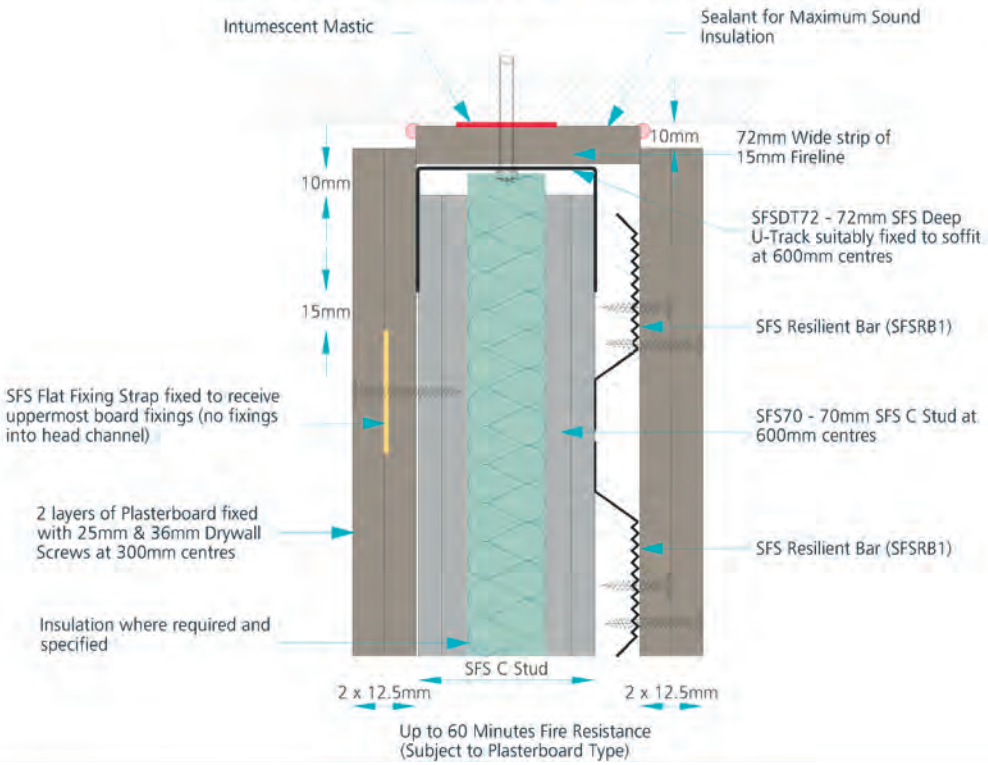
The SFS Resilient Bar partially separates the plasterboard from the metal frame reducing the sound transmission. Fitted horizontally, it can be installed on one or both sides and is suitable for double boarding however you must not fix boards to studs or tracks to ensure optimum acoustic performance. It is easy to fit and reduces installation time when compared to more complex systems.



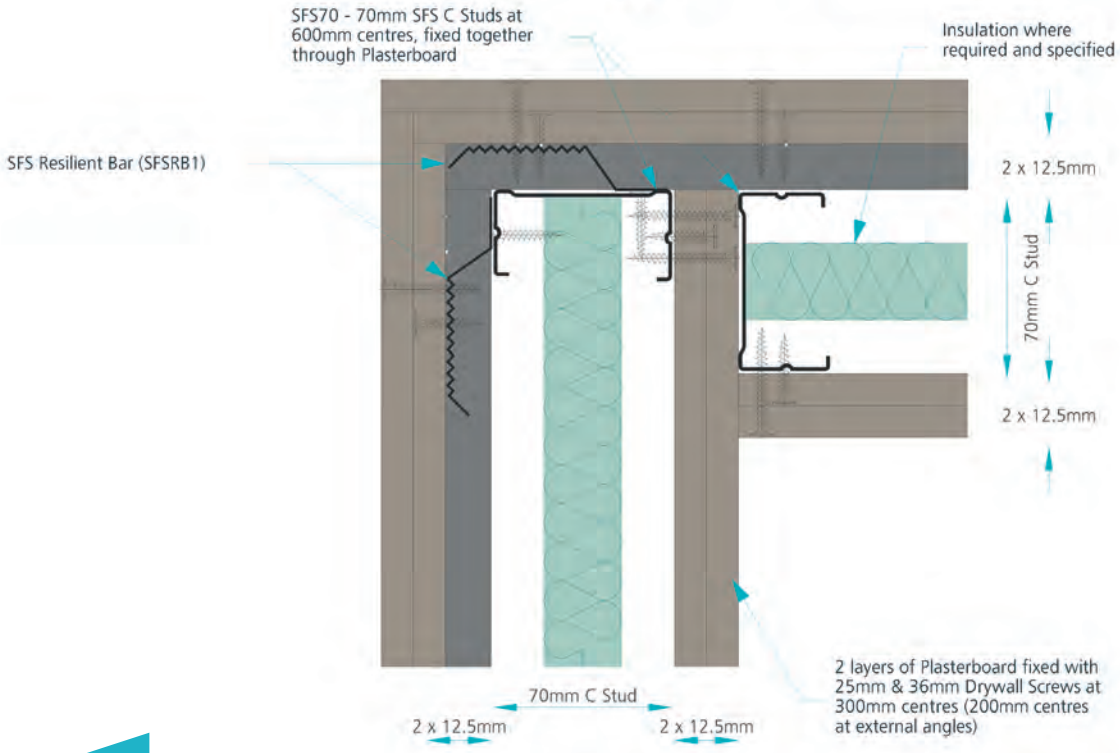
Typical 70mm C Stud Head Detail using Resilient Bar



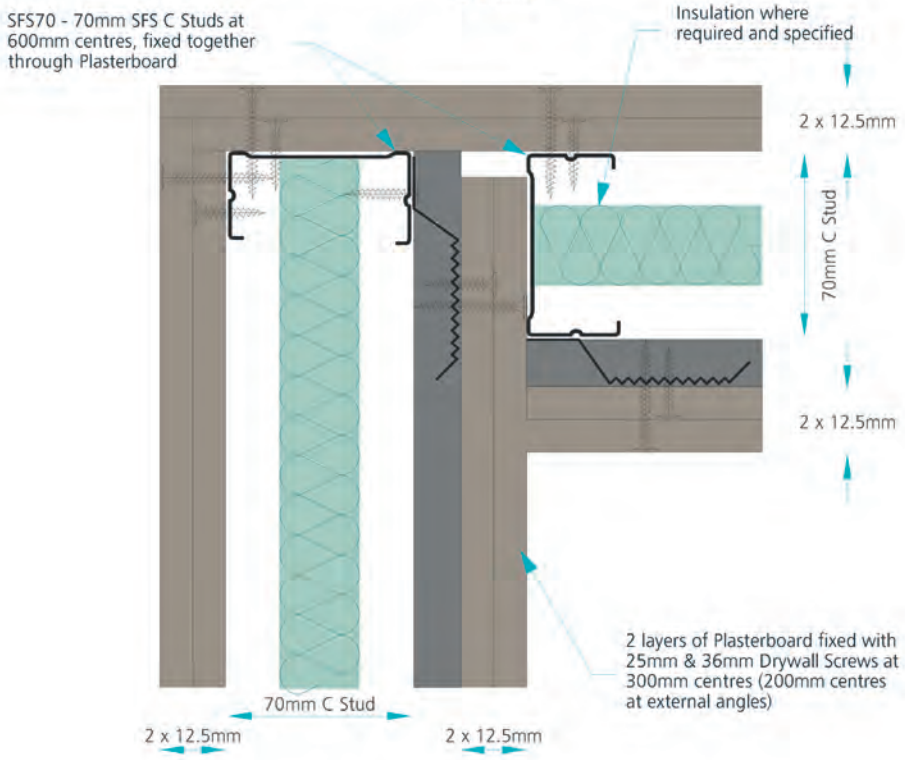
Typical 10mm Downward Movement Deflection Head Detail with Resilient Bar



Resilient Bar to External Corner Detail

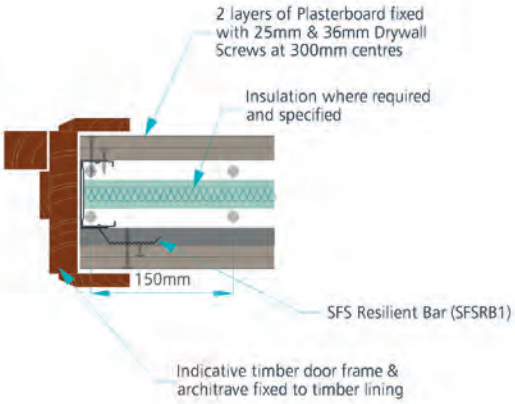


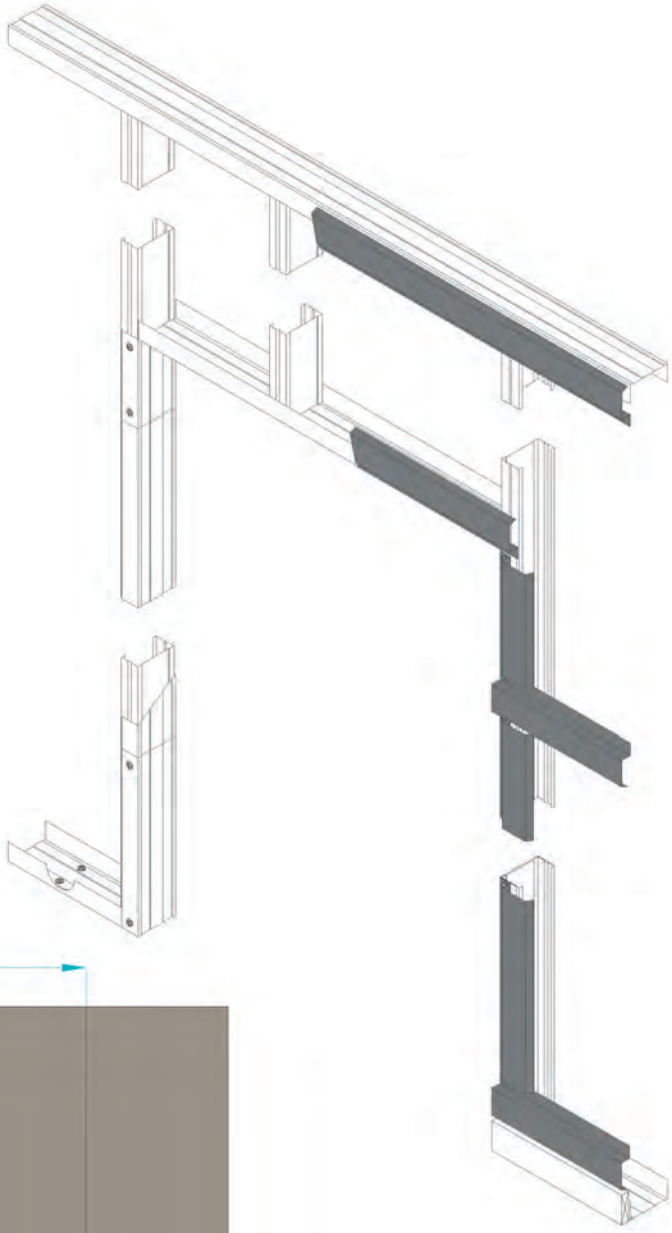
Resilient Bar to Internal Corner Detail

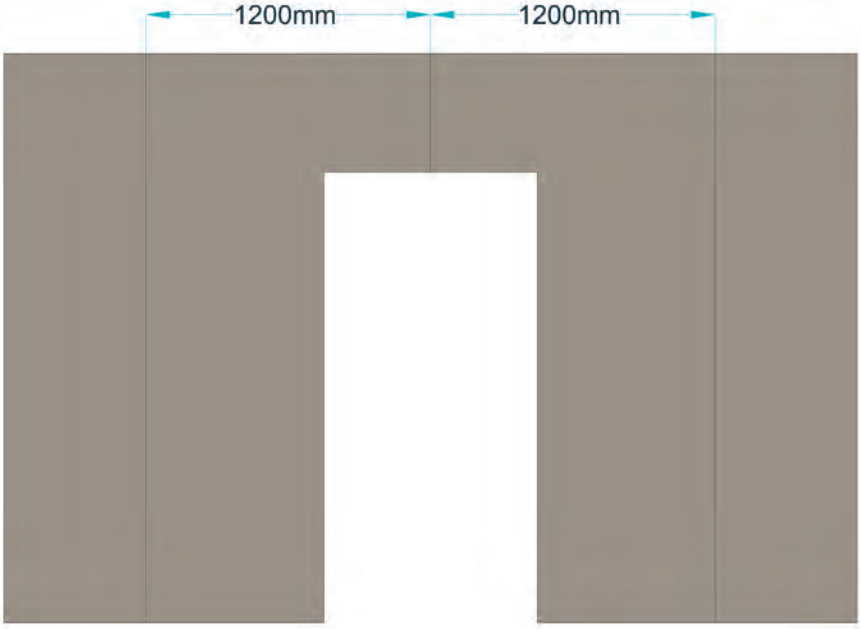


SFS Steel Formed Sections

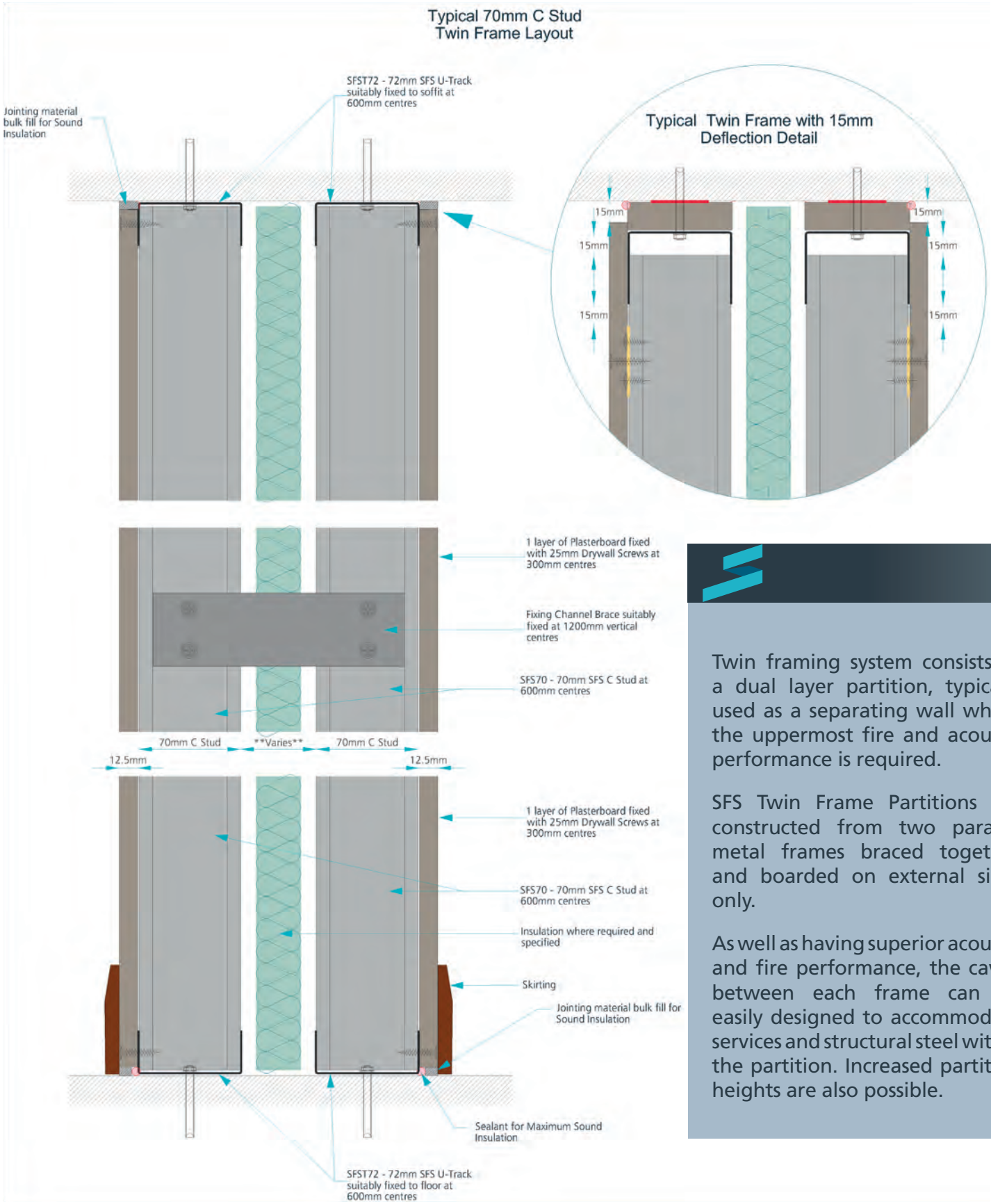
Typical Heavy Duty Door Frame with Resilient Bar







SFS TWIN FRAME PARTITION SYSTEMS



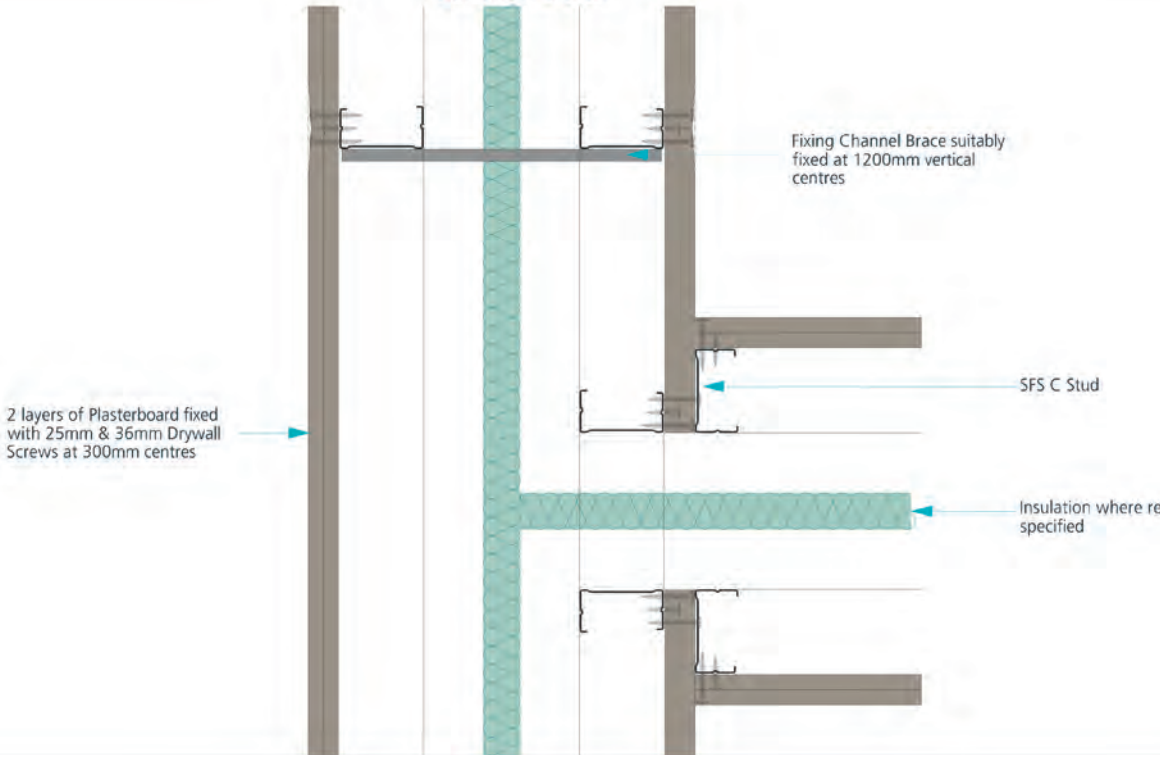
Twin framing system consists of a dual layer partition, typically used as a separating wall where the uppermost fire and acoustic performance is required.

SFS Twin Frame Partitions are constructed from two parallel metal frames braced together and boarded on external sides only.

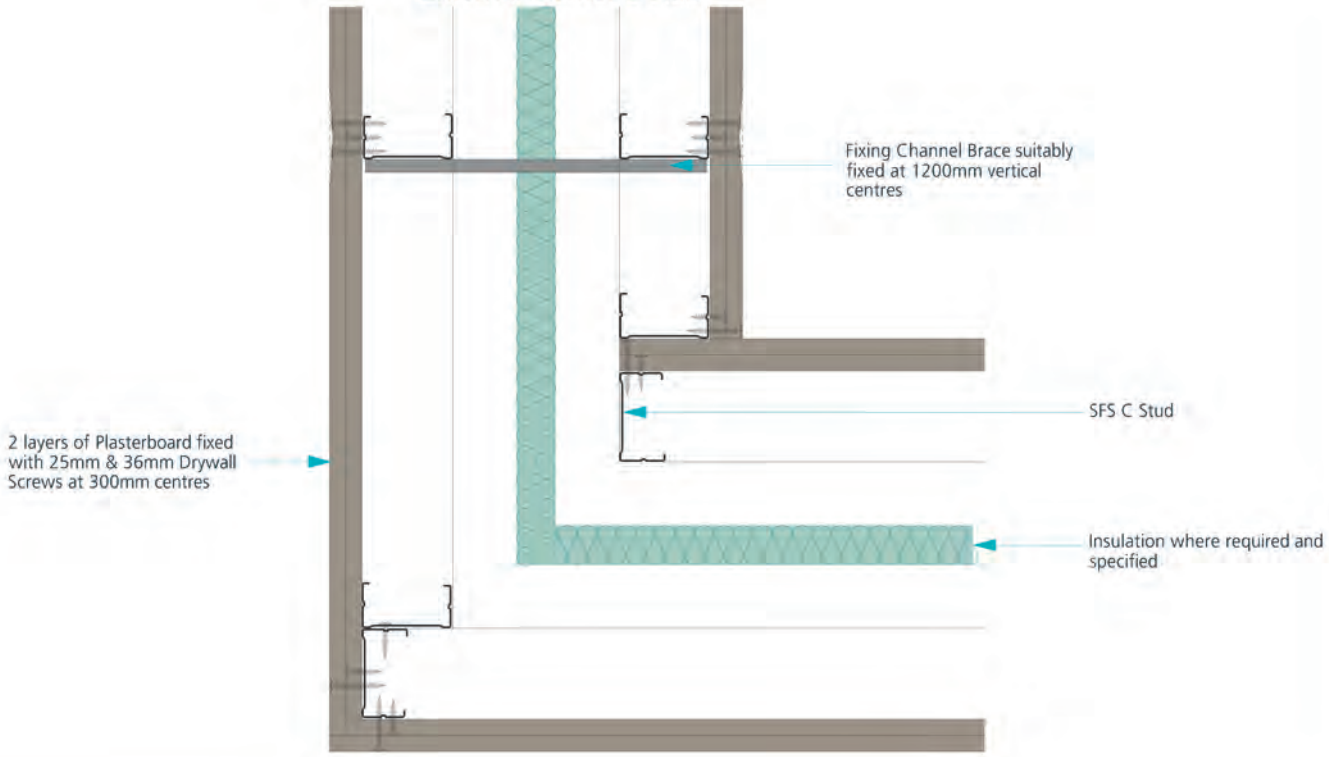
As well as having superior acoustic and fire performance, the cavity between each frame can be easily designed to accommodate services and structural steel within the partition. Increased partition heights are also possible.

SFS Steel Formed Sections

Typical SFS Twin Wall 'T' Junction Detail



Typical SFS Twin Wall Internal / External Corner Detail



SFS Steel Formed Sections

SFS PARTITIONING SYSTEM PERFORMANCE GUIDE

The following Fire and Acoustic results have been obtained on behalf of Steel Formed Sections from Independent Test Bodies in accordance with the associated testing and assessment standards.

The Fire tests are carried out in a 3m x 3m aperture furnace simulating the most intensive period of fire with results based on the initial failure of either the integrity and insulation capacity of the system rounded down to the nearest 30, 60, 90 or 120 minutes.

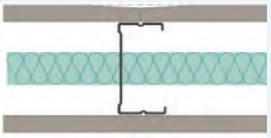
All acoustic test data is conducted within laboratory conditions, built at 600mm centres. On site conditions in which the partition is to be built, deflection head details and reduced stud centres may have an effect on the test figures. A reduction of circa 7dB can potentially be expected when comparing laboratory testing and site testing.

SFS70 (70MM) C STUD PARTITIONING SYSTEM

70mm C Stud Single Layer Standard Board Performance Guide

Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	95mm	3.6m	Medium	Gyproc	30mins	SFS1101	-	37dB	SFS076
				Knauf	30mins	SFS1108	-	36dB	SFS012
				Siniat	30mins	SFS1109	-	35dB	SFS255
15mm	100mm	3.8m	Medium	Gyproc	30mins	SFS1101	-	38dB	SFS066
				Knauf	30mins	SFS1108	-	37dB	SFS172
				Siniat	30mins	SFS1109	-	38dB	SFS173

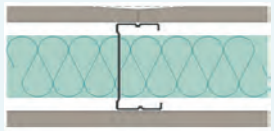
70mm C Stud Single Layer Standard Board with 25mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	95mm	3.6m	Medium	Gyproc	30 Mins	SFS1101	-	43dB	SFS120
				Knauf	30 Mins	SFS1108	-	41dB	SFS117
				Siniat	30 Mins	SFS1109	-	41dB	SFS256
15mm	100mm	3.8m	Medium	Gyproc	30 Mins	SFS1101	-	44dB	SFS072
				Knauf	30 Mins	SFS1108	-	43dB	SFS174
				Siniat	30 Mins	SFS1109	-	44dB	SFS356

SFS Steel Formed Sections

70mm C Stud Single Layer Standard Board with 50mm Insulation Performance Guide

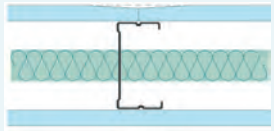


Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	95mm	3.6m	Medium	Gyproc	30 Mins	SFS1101	SFS2135	45dB	SFS075
				Knauf	30 Mins	SFS1108	-	43dB	SFS011
				Siniat	30 Mins	SFS1109	-	44dB	SFS354
15mm	100mm	3.8m	Medium	Gyproc	30 Mins	SFS1101	SFS2135	46dB	SFS073
				Knauf	30 Mins	SFS1108	-	43dB	SFS176
				Siniat	30 Mins	SFS1109	-	48dB	SFS355

70mm C Stud Single Layer Acoustic Board Performance Guide

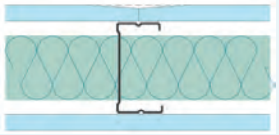
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	95mm	3.6m	Medium	Gyproc	30 Mins	SFS1101	SFS2118	40dB	SFS120
				Knauf	30 Mins	SFS1108	-	40dB	SFS117
				Siniat	30 Mins	SFS1109	-	39dB	SFS256
15mm	100mm	3.8m	Heavy	Gyproc	30 Mins	SFS1135	SFS2118	43dB	SFS072
				Knauf	60 Mins	SFS1126	-	39dB	SFS174
				Siniat	30 Mins	SFS1109	-	41dB	SFS356

70mm C Stud Single Layer Acoustic Board with 25mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	95mm	3.6m	Medium	Gyproc	30 Mins	SFS1101	SFS2118	47dB	SFS060
				Knauf	30 Mins	SFS1108	-	46dB	SFS252
				Siniat	30 Mins	SFS1109	-	45dB	SFS035
15mm	100mm	3.8m	Heavy	Gyproc	30 Mins	SFS1135	SFS2118	48dB	SFS045
				Knauf	60 Mins	SFS1126	-	44dB	SFS009
				Siniat	30 Mins	SFS1109	-	45dB	SFS032

70mm C Stud Single Layer Acoustic Board with 50mm Insulation Performance Guide



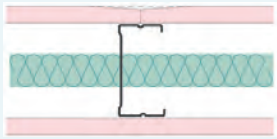
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	95mm	3.6m	Medium	Gyproc	30 Mins	SFS1101	SFS2118	49dB	SFS059
				Knauf	30 Mins	SFS1108	-	48dB	SFS091
				Siniat	30 Mins	SFS1109	-	47dB	SFS034
15mm	100mm	3.8m	Heavy	Gyproc	30 Mins	SFS1135	SFS2118	48dB	SFS057
				Knauf	60 Mins	SFS1126	-	48dB	SFS010
				Siniat	30 Mins	SFS1109	-	46dB	SFS031

SFS Steel Formed Sections

70mm C Stud Single Layer Fire Board Performance Guide

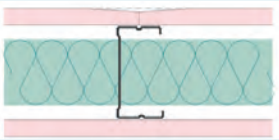
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	95mm	3.6m	Medium	Gyproc	30 Mins	SFS1101	SFS2118	38dB	SFS051
				Knauf	30 Mins	SFS1108	-	37dB	SFS293
				Siniat	30 Mins	SFS1109	-	38dB	SFS272
15mm	100mm	3.8m	Heavy	Gyproc	60 Mins	-	SFS2104	40dB	SFS015
				Knauf	60 Mins	-	SFS2111	38dB	SFS298
				Siniat	60 Mins	-	SFS2112	39dB	SFS273

70mm C Stud Single Layer Fire Board with 25mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	95mm	3.6m	Medium	Gyproc	30 Mins	SFS1101	SFS2118	44dB	SFS003
				Knauf	30 Mins	SFS1108	-	43dB	SFS297
				Siniat	30 Mins	SFS1109	-	42dB	SFS276
15mm	100mm	3.8m	Heavy	Gyproc	60 Mins	-	SFS2104	44dB	SFS048
				Knauf	60 Mins	-	SFS2111	44dB	SFS302
				Siniat	60 Mins	-	SFS2112	44dB	SFS278

70mm C Stud Single Layer Fire Board with 50mm Insulation Performance Guide



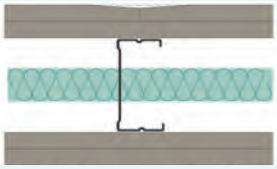
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	95mm	3.6m	Medium	Gyproc	30 Mins	SFS1101	SFS2118	45dB	SFS050
				Knauf	30 Mins	SFS1108	-	45dB	SFS296
				Siniat	30 Mins	SFS1109	-	44dB	SFS277
15mm	100mm	3.8m	Heavy	Gyproc	60 Mins	-	SFS2104	44dB	-
				Knauf	60 Mins	-	SFS2111	46dB	SFS303
				Siniat	60 Mins	-	SFS2112	46dB	SFS279

70mm C Stud Double Layer Standard Board Performance Guide

Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	120mm	4.6m	Severe	Gyproc	60 Mins	SFS1127	SFS2136	47dB	SFS070
				Knauf	60 Mins	-	SFS2107	45dB	SFS014
				Siniat	60 Mins	-	SFS2108	44dB	SFS260
2 x 15mm	130mm	4.9m	Severe	Gyproc	90 Mins	SFS1112	-	48dB	SFS067
				Knauf	90 Mins	SFS1117	-	45dB	SFS103
				Siniat	90 Mins	SFS1114	-	48dB	SFS196

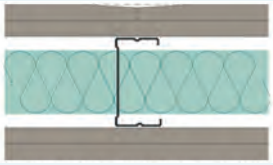
SFS Steel Formed Sections

70mm C Stud Double Layer Standard Board with 25mm Insulation Performance Guide



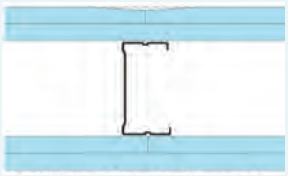
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	120mm	4.6m	Severe	Gyproc	60 Mins	SFS1127	SFS2136	53dB	SFS071
				Knauf	60 Mins	-	SFS2107	50dB	SFS005
				Siniat	60 Mins	-	SFS2108	51dB	SFS259
2 x 15mm	130mm	4.9m	Severe	Gyproc	90 Mins	SFS1112	-	53dB	SFS068
				Knauf	90 Mins	SFS1117	-	53dB	SFS197
				Siniat	90 Mins	SFS1114	-	53dB	SFS198

70mm C Stud Double Layer Standard Board with 50mm Insulation Performance Guide



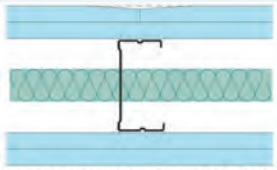
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	120mm	4.6m	Severe	Gyproc	60 Mins	SFS1127	SFS2136	50dB	SFS121
				Knauf	60 Mins	-	SFS2107	51dB	SFS004
				Siniat	60 Mins	-	SFS2108	50dB	SFS258
2 x 15mm	130mm	4.9m	Severe	Gyproc	90 Mins	SFS1112	-	54dB	SFS069
				Knauf	90 Mins	SFS1117	-	52dB	SFS199
				Siniat	90 Mins	SFS1114	-	56dB	SFS357

70mm C Stud Double Layer Acoustic Board Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	120mm	4.6m	Severe	Gyproc	60 Mins	SFS1127	SFS2136	49dB	SFS065
				Knauf	60 Mins	-	SFS2107	48dB	SFS006
				Siniat	60 Mins	-	SFS2108	49dB	SFS029
2 x 15mm	130mm	4.9m	Severe	Gyproc	90 Mins	SFS1112	-	51dB	SFS061
				Knauf	90 Mins	SFS1110	-	48dB	SFS096
				Siniat	90 Mins	SFS1114	-	48dB	SFS019

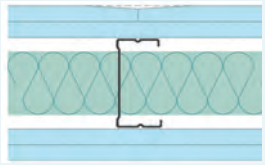
70mm C Stud Double Layer Acoustic Board with 25mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	120mm	4.6m	Severe	Gyproc	60 Mins	SFS1127	SFS2136	53dB	SFS064
				Knauf	60 Mins	-	SFS2107	54dB	SFS169
				Siniat	60 Mins	-	SFS2108	54dB	SFS028
2 x 15mm	130mm	4.9m	Severe	Gyproc	90 Mins	SFS1112	-	55dB	SFS063
				Knauf	90 Mins	SFS1110	-	54dB	SFS095
				Siniat	90 Mins	SFS1114	-	54dB	SFS021

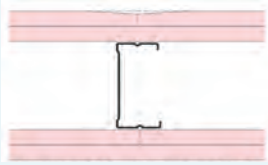
SFS Steel Formed Sections

70mm C Stud Double Layer Acoustic Board with 50mm Insulation Performance Guide



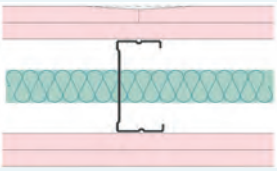
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	120mm	4.6m	Severe	Gyproc	60 Mins	SFS1127	SFS2136	55dB	SFS157
				Knauf	60 Mins	-	SFS2107	53dB	SFS115
				Siniat	60 Mins	-	SFS2108	56dB	SFS027
2 x 15mm	130mm	4.9m	Severe	Gyproc	90 Mins	SFS1112	-	58dB	SFS041
				Knauf	90 Mins	SFS1110	-	56dB	SFS092
				Siniat	90 Mins	SFS1114	-	55dB	SFS020

70mm C Stud Double Layer Fire Board Performance Guide



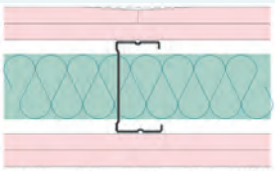
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	120mm	4.6m	Severe	Gyproc	120 Mins	-	SFS2103	46dB	SFS054
				Knauf	120 Mins	-	SFS2106	46dB	SFS294
				Siniat	120 Mins	-	SFS2110	46dB	SFS274
2 x 15mm	130mm	4.9m	Severe	Gyproc	120 Mins	-	SFS2103	48dB	SFS022
				Knauf	120 Mins	-	SFS2106	48dB	SFS299
				Siniat	120 Mins	-	SFS2110	48dB	SFS275

70mm C Stud Double Layer Fire Board with 25mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	120mm	4.6m	Severe	Gyproc	120 Mins	-	SFS2103	49dB	SFS053
				Knauf	120 Mins	-	SFS2106	52dB	SFS102
				Siniat	120 Mins	-	SFS2110	-	-
2 x 15mm	130mm	4.9m	Severe	Gyproc	120 Mins	-	SFS2103	52dB	SFS023
				Knauf	120 Mins	-	SFS2106	55dB	SFS301
				Siniat	120 Mins	-	SFS2110	53dB	SFS283

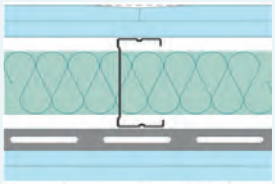
70mm C Stud Double Layer Fire Board with 50mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	120mm	4.6m	Severe	Gyproc	120 Mins	-	SFS2103	50dB	SFS052
				Knauf	120 Mins	-	SFS2106	54dB	SFS295
				Siniat	120 Mins	-	SFS2110	54dB	SFS286
2 x 15mm	130mm	4.9m	Severe	Gyproc	120 Mins	-	SFS2103	52dB	SFS023
				Knauf	120 Mins	-	SFS2106	57dB	SFS300
				Siniat	120 Mins	-	SFS2110	56dB	SFS284

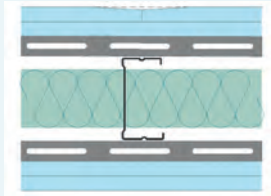
SFS Steel Formed Sections

70mm C Stud Double Layer Acoustic Board with 50mm Insulation & Resilient Bar Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	137mm	4.6m	Severe	Gyproc	60 Mins	-	SFS2119	62 dB	SFS332
				Knauf	-	-	-	59 dB	SFS116
				Siniat	-	-	-	61 dB	SFS334
2 x 15mm	147mm	4.9m	Severe	Gyproc	90 Mins	-	SFS2121	61 dB	SFS040
				Knauf	-	-	-	58 dB	SFS093
				Siniat	-	-	-	-	-

70mm C Stud Double Layer Acoustic Board with 50mm Insulation & 2x Resilient Bar Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	137mm	4.6m	Severe	Gyproc	90 Mins	-	SFS2157	61 dB	SFS349
						-	-	-	
						-	-	-	
2 x 15mm	147mm	4.9m	Severe	Gyproc	90 Mins	-	SFS2157	63 dB	SFS350
						-	-	-	
						-	-	-	-

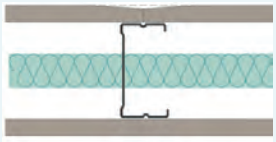
SFS Steel Formed Sections

SFS90 (90MM) C STUD PARTITIONING SYSTEM

90mm C Stud Single Layer Standard Board Performance Guide

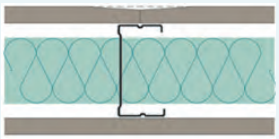
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	115mm	4.5m	Medium	Gyproc	-	-	-	-	-
				Knauf	-	-	-	36dB	SFS291
				Siniat	-	-	-	35dB	SFS322
15mm	120mm	4.7m	Medium	Gyproc	-	-	-	41dB	SFS3171
				Knauf	-	-	-	-	-
				Siniat	-	-	-	38dB	SFS328

90mm C Stud Single Layer Standard Board with 25mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	115mm	4.5m	Medium	Gyproc	-	-	-	-	-
				Knauf	-	-	-	-	-
				Siniat	-	-	-	41dB	SFS323
15mm	120mm	4.7m	Medium	Gyproc	-	-	-	47dB	SFS372
				Knauf	-	-	-	-	-
				Siniat	-	-	-	43dB	SFS329

90mm C Stud Single Layer Standard Board with 50mm Insulation Performance Guide



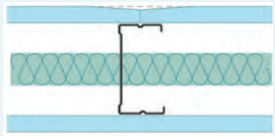
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	115mm	4.5m	Medium	Gyproc	30 Mins	-	SFS2135	-	-
				Knauf	-	-	-	-	-
				Siniat	-	-	-	42dB	SFS324
15mm	120mm	4.7m	Medium	Gyproc	30 Mins	-	SFS2135	49dB	SFS373
				Knauf	-	-	-	-	-
				Siniat	-	-	-	46dB	SFS330

90mm C Stud Single Layer Acoustic Board Performance Guide

Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	115mm	4.5m	Medium	Gyproc	30 Mins	-	SFS2118	41dB	SFS178
				Knauf	-	-	-	40dB	SFS179
				Siniat	-	-	-	38dB	SFS180
15mm	120mm	4.7m	Heavy	Gyproc	30 Mins	-	SFS2118	44dB	SFS181
				Knauf	-	-	-	41dB	SFS361
				Siniat	30 Mins	-	-	41dB	SFS183

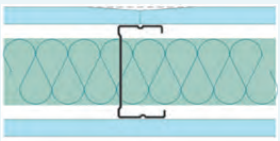
SFS Steel Formed Sections

90mm C Stud Single Layer Acoustic Board with 25mm Insulation Performance Guide



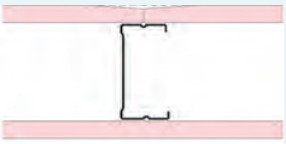
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	115mm	4.5m	Medium	Gyproc	30 Mins	-	SFS2118	47dB	SFS184
				Knauf	-	-	-	46dB	SFS185
				Siniat	-	-	-	43dB	SFS186
15mm	120mm	4.7m	Heavy	Gyproc	30 Mins	-	SFS2118	49dB	SFS190
				Knauf	-	-	-	46dB	SFS362
				Siniat	-	-	-	44dB	SFS192

90mm C Stud Single Layer Acoustic Board with 50mm Insulation Performance Guide



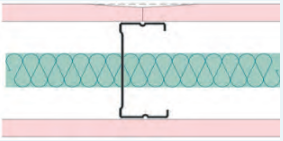
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	115mm	4.5m	Medium	Gyproc	30 Mins	-	SFS2118	49dB	SFS187
				Knauf	-	-	-	49dB	SFS188
				Siniat	-	-	-	46dB	SFS189
15mm	120mm	4.7m	Heavy	Gyproc	30 Mins	-	SFS2118	51dB	SFS193
				Knauf	-	-	-	52dB	SFS360
				Siniat	-	-	-	46dB	SFS195

90mm C Stud Single Layer Fire Board Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	115mm	4.5m	Medium	Gyproc	30 Mins	-	SFS2118	-	-
				Knauf	-	-	-	-	-
				Siniat	-	-	-	-	-
15mm	120mm	4.7m	Heavy	Gyproc	60 Mins	-	SFS2104	41dB	SFS358
				Knauf	60 Mins	-	SFS2111	-	-
				Siniat	60 Mins	-	SFS2112	-	-

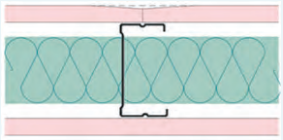
90mm C Stud Single Layer Fire Board with 25mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	115mm	4.5m	Medium	Gyproc	30 Mins	-	SFS2118	-	-
				Knauf	-	-	-	-	-
				Siniat	-	-	-	-	-
15mm	120mm	4.7m	Heavy	Gyproc	60 Mins	-	SFS2104	45dB	SFS271
				Knauf	60 Mins	-	SFS2111	-	-
				Siniat	60 Mins	-	SFS2112	-	-

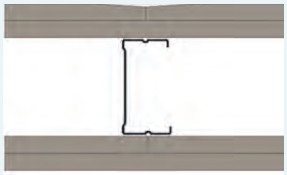
SFS Steel Formed Sections

90mm C Stud Single Layer Fire Board with 50mm Insulation Performance Guide



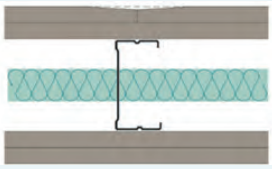
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
12.5mm	115mm	4.5m	Medium	Gyproc	30 Mins	-	SFS2135	-	-
				Knauf	-	-	-	-	-
				Siniat	-	-	-	-	-
15mm	120mm	4.7m	Heavy	Gyproc	60 Mins	-	SFS2104	48dB	SFS359
				Knauf	60 Mins	-	SFS2111	-	-
				Siniat	60 Mins	-	SFS2112	-	-

90mm C Stud Double Layer Standard Board Performance Guide



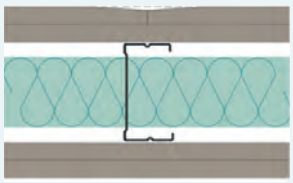
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	140mm	5.7m	Severe	Gyproc	60 Mins	SFS1129	SFS2136	49dB	SFS370
				Knauf	60 Mins	-	SFS2107	43dB	SFS288
				Siniat	60 Mins	-	SFS2108	44dB	SFS327
2 x 15mm	150mm	5.9m	Severe	Gyproc	-	-	-	51dB	SFS367
				Knauf	-	-	-	-	-
				Siniat	-	-	-	-	-

90mm C Stud Double Layer Standard Board with 25mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	140mm	5.7m	Severe	Gyproc	60 Mins	SFS1129	SFS2136	55dB	SFS369
				Knauf	60 Mins	-	SFS2107	40dB	SFS290
				Siniat	60 Mins	-	SFS2108	49dB	SFS326
2 x 15mm	150mm	5.9m	Severe	Gyproc	-	-	-	-	-
				Knauf	-	-	-	-	-
				Siniat	-	-	-	-	-

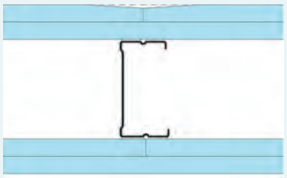
90mm C Stud Double Layer Standard Board with 50mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	140mm	5.7m	Severe	Gyproc	60 Mins	SFS1129	SFS2136	56dB	SFS368
				Knauf	60 Mins	-	SFS2107	41dB	SFS289
				Siniat	60 Mins	-	SFS2108	50dB	SFS325
2 x 15mm	150mm	5.9m	Severe	Gyproc	-	-	-	55dB	SFS365
				Knauf	-	-	-	-	-
				Siniat	-	-	-	52dB	SFS331

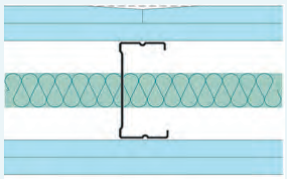
SFS Steel Formed Sections

90mm C Stud Double Layer Acoustic Board Performance Guide



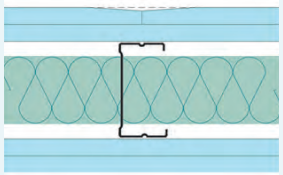
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	140mm	5.7m	Severe	Gyproc	60 Mins	SFS1129	SFS2136	51dB	SFS203
				Knauf	60 Mins	-	SFS2107	51dB	SFS204
				Siniat	60 Mins	-	SFS2108	48dB	SFS205
2 x 15mm	150mm	5.9m	Severe	Gyproc	-	-	-	53dB	SFS206
				Knauf	-	-	-	51dB	SFS207
				Siniat	-	-	-	49dB	SFS208

90mm C Stud Double Layer Acoustic Board with 25mm Insulation Performance Guide



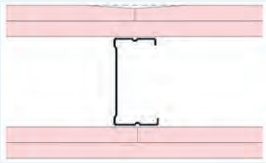
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	140mm	5.7m	Severe	Gyproc	60 Mins	SFS1129	SFS2136	55dB	SFS209
				Knauf	60 Mins	-	SFS2107	56dB	SFS210
				Siniat	60 Mins	-	SFS2108	51dB	SFS211
2 x 15mm	150mm	5.9m	Severe	Gyproc	-	-	-	57dB	SFS216
				Knauf	-	-	-	54dB	SFS217
				Siniat	-	-	-	53dB	SFS218

90mm C Stud Double Layer Acoustic Board with 50mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	140mm	5.7m	Severe	Gyproc	60 Mins	SFS1129	SFS2136	55dB	SFS212
				Knauf	60 Mins	-	SFS2107	57dB	SFS213
				Siniat	60 Mins	-	SFS2108	51dB	SFS214
2 x 15mm	150mm	5.9m	Severe	Gyproc	-	-	-	56dB	SFS221
				Knauf	-	-	-	54dB	SFS222
				Siniat	-	-	-	55dB	SFS223

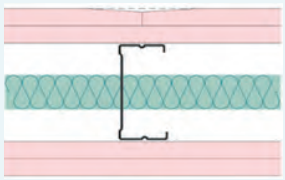
90mm C Stud Double Layer Fire Board Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	140mm	5.7m	Severe	Gyproc	120 Mins	-	SFS2103	-	-
				Knauf	120 Mins	-	SFS2106	-	-
				Siniat	120 Mins	-	SFS2110	-	-
2 x 15mm	150mm	5.9m	Severe	Gyproc	120 Mins	-	SFS2103	50dB	SFS374
				Knauf	120 Mins	-	SFS2106	-	-
				Siniat	120 Mins	-	SFS2110	-	-

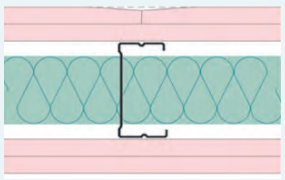
SFS Steel Formed Sections

90mm C Stud Double Layer Fire Board with 25mm Insulation Performance Guide



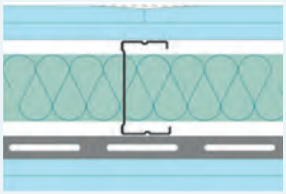
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	140mm	5.7m	Severe	Gyproc	120 Mins	-	SFS2103	-	-
				Knauf	120 Mins	-	SFS2106	-	-
				Siniat	120 Mins	-	SFS2110	-	-
2 x 15mm	150mm	5.9m	Severe	Gyproc	120 Mins	-	SFS2103	55dB	SFS375
				Knauf	120 Mins	-	SFS2106	-	-
				Siniat	120 Mins	-	SFS2110	-	-

90mm C Stud Double Layer Fire Board with 50mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	140mm	5.7m	Severe	Gyproc	120 Mins	-	SFS2103	-	-
				Knauf	120 Mins	-	SFS2106	-	-
				Siniat	120 Mins	-	SFS2110	-	-
2 x 15mm	150mm	5.9m	Severe	Gyproc	120 Mins	-	SFS2103	55dB	SFS376
				Knauf	120 Mins	-	SFS2106	53dB	SFS086
				Siniat	120 Mins	-	SFS2110	-	-

90mm C Stud Double Layer Acoustic Board with 50mm Insulation & Resilient Bar Performance Guide

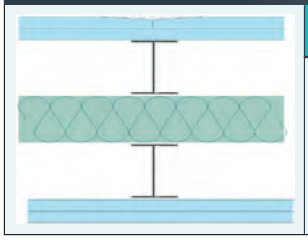


Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2 x 12.5mm	157mm	5.7m	Severe	Gyproc	60 Mins	-	SFS2119	59dB	SFS215
				Knauf	-	-	-	-	-
				Siniat	-	-	-	60dB	-
2 x 15mm	167mm	5.7m	Severe	Gyproc	90 Mins	-	SFS2121	-	-
				Knauf	-	-	-	61dB	SFS364
				Siniat	-	-	-	60dB	SFS225

SFS Steel Formed Sections

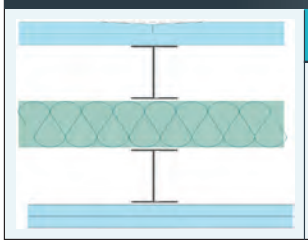
TWIN I STUD PARTITIONING SYSTEM

2 x 50I50 Twin Wall Double Layer Acoustic Board with 50mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2x 15mm	200mm	2.8m	Severe	Gyproc	120 Mins	-	SFS2161	65dB	SFS378

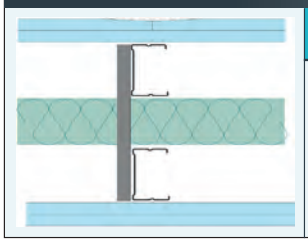
2 x 60I70 Twin Wall Double Layer Acoustic Board with 100mm Insulation Performance Guide



Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2x 15mm	250mm 250mm 250mm	3.9m	Severe	Gyproc Knauf Siniat	120 Mins 120 Mins 90 Mins	- - -	SFS2146 SFS2160 SFS2159	65dB 64dB 65dB	SFS378 SFS308 SFS306

TWIN C STUD PARTITIONING SYSTEM

2 x 50mm C Stud Double Layer Acoustic Board with 50mm Insulation Performance Guide

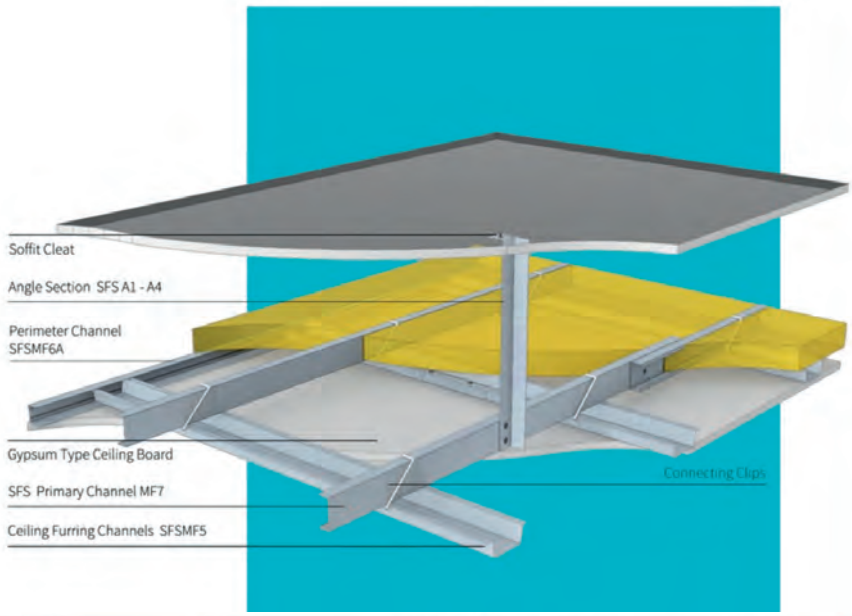


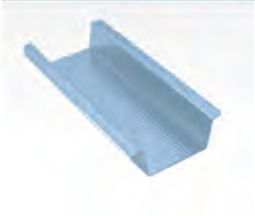
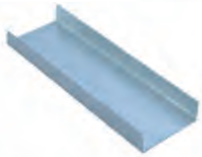
Board Width	Partition Width	Max Height	Duty Rating	Board Manufacturer	Fire Rating	Fire Test Ref BS476-22	Fire Test Ref EN1364-1	Acoustic Rating	Acoustic Test Rating
2x 15mm	300mm	7.5m	Severe	Gyproc	120 Mins	-	SFS2101	62dB	SFS268

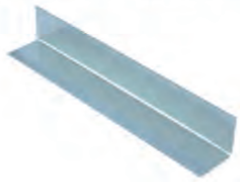
SFS MF CEILING SYSTEM

BACKGROUND

The SFS MF Suspended Ceiling System is suited for commercial & domestic applications where it is necessary the ceiling height may vary to run services such as ducting or lighting. The SFS MF Ceiling System can be used below Concrete Soffits, Metal Deck Systems or Timber Joists.



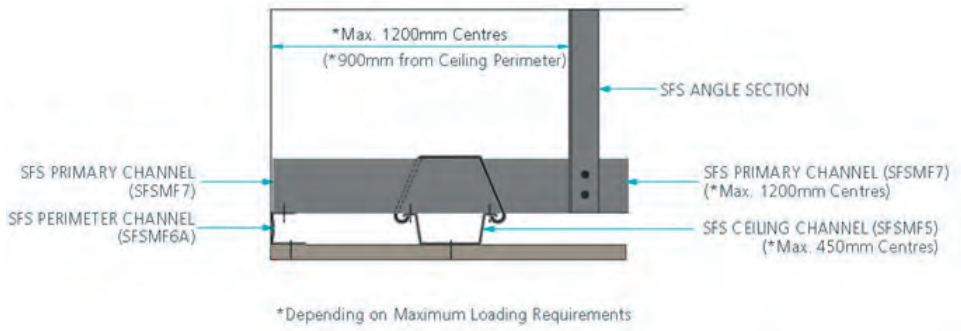
Metal Furring System	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSMF5	SFS Ceiling Channel 3600	0.50	50	200
	Custom Manufactured Sizes Available on Request				
	SFSMF6A	SFS perimeter Channel 3600	0.50	10	300
	SFSMF7	SFS Primary Channel 3600	0.70	10	200
			0.90	10	200

Angle Sections	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSA1	25 x 25 / 3000, 3600	0.50	20	100
	SFSA2	48 x 48 / 3000, 3600	0.50	20	100
	SFSA3	25 x 25 / 3000, 3600	0.70	20	100
	SFSA4	48 x 48 / 3000, 3600	0.70	20	100
	Custom Manufactured Sizes Available on Request				

SFS MF CEILING SYSTEM

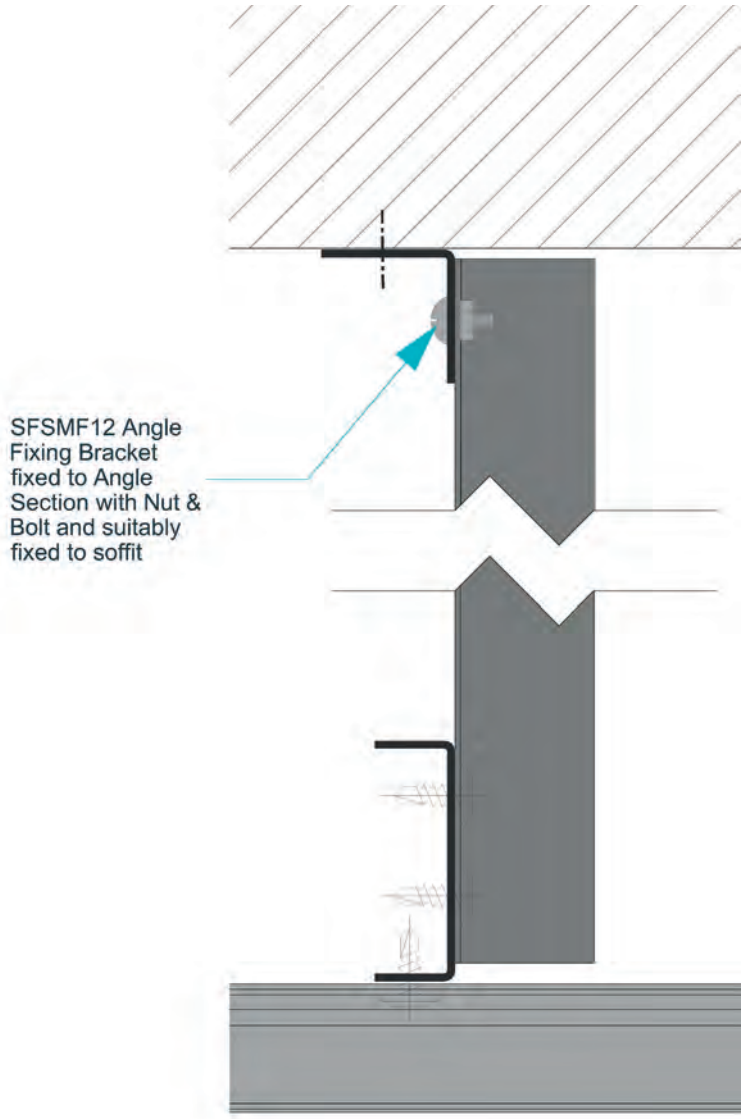
BENEFITS

- Allows easy installation of services in the void above the ceiling.
- Suitable for fixing all types of plasterboard, creating a surface suitable for decorative finishes.
- It is a fast and clean system to erect.
- Improved levels of thermal and acoustic insulation can be achieved.
- Improved acoustic performance can be achieved by using SFS Acoustic Hangers.
- Easy to cut to size using tin snips.



FRAME INSTALLATION

- SFS Perimeter Channel (SFSMF6A) should be fixed to the structure at the perimeter of the ceiling run and around any columns / obstructions within the ceiling, fixed at 600mm centres using appropriate fixings. (Allow for board depth when positioning channel)
- SFS Angle Sections should be positioned at a maximum of 1200mm centres and fixed to the structure using SFS Angle fixing brackets (SFSMF12) and appropriate fixings. Please note SFS Angle Sections should be a maximum of 900mm from the ceiling perimeter.
- SFS Primary Channel (SFSMF7) to be positioned at a maximum of 1200mm centres and fixed to the Angle Sections at using appropriate fixings. Please note centres based on minimum loading requirements and should be confirmed by the designer (Max 1200mm). Primary Channels must overlap by a minimum of 150mm at joints.
- SFS Ceiling Channel (SFSMF5) should be positioned into the SFS Perimeter Channel at a maximum of 450mm centres and fixed at right angles to the SFS Primary Channel. Ceiling Channels must overlap by a minimum of 150mm at joints.
- SFS Furring Clips can be used for positioning purposes however screw fixing of Ceiling Channel to Primary Channel is recommended. (See Section on Ceiling Lift)



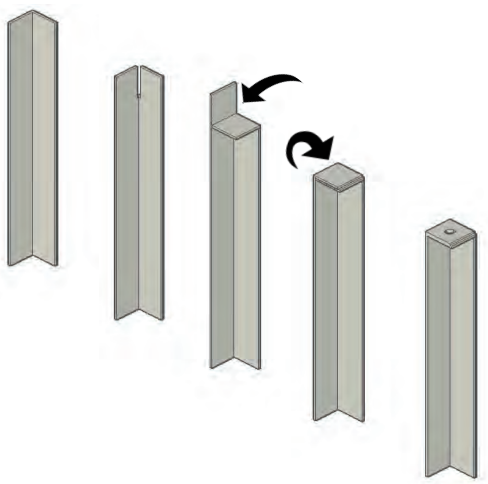
SFS MF IMPOSED LOADS

Please reference table below for guidance on MF support capability of the following imposed loads:-

SFS MF Imposed Loads Table				
Suspension Point Centres	**SFS MF7 Primary Channel Centres**	**SFS MF5 Ceiling Channel Centres**	**Maximum Load Using SFSM12 Fixing Bracket**	**Maximum Load With SFSA1 Angle Fixed Directly To Soffit (Single Layer Systems Only)**
1200mm	1200mm	450mm	*30kgs per Sq/m	*22kgs per Sq/m
1200mm	900mm	450mm	*40kgs per Sq/m	*30kgs per Sq/m
1200mm	600mm	450mm	*60kgs per Sq/m	*45kgs per Sq/m

*Maximum Load includes weight of board, insulation and skimcoat plaster only

- SFS Angle Sections may be used to fix directly to the soffit for Single boarding solutions only. The angle must be snipped at one end with each side overlapped inwards on top of each other as illustrated below:-



Please note that this method is for Single Layer Boarding Systems only and results in a reduction of maximum loading capacity of 25% as documented in the SFS MF Imposed Loads Table

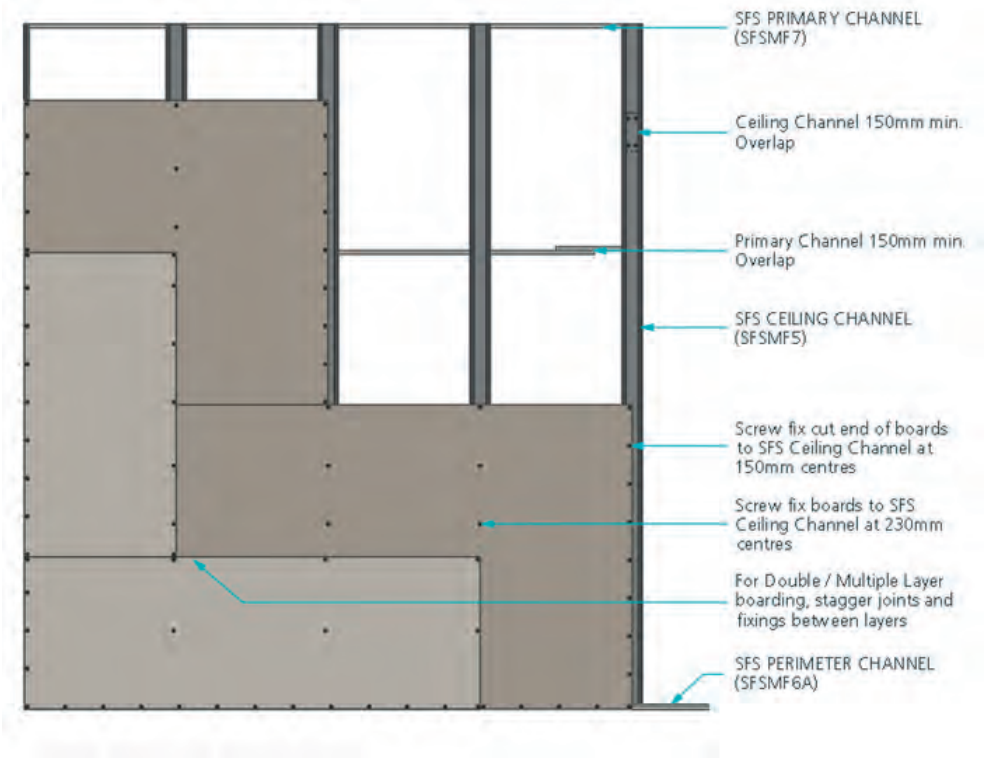
PLASTERBOARD INSTALLATION

SINGLE LAYER PLASTERBOARD

Bound edges must be fixed at right angles to the SFS Ceiling Channel with joints lightly butted together. All boards should be staggered by half a board length, joining at the centre of the Ceiling Channel. The plasterboard is screw-fixed to the Ceiling Channels as per layout above.

DOUBLE / MULTIPLE LAYER PLASTERBOARD

All board joints must be staggered between layers whilst also ensuring that joints between boards occur at the centre of the SFS Ceiling Channel. Each layer should be screw fixed directly to the Ceiling and Perimeter Channels, avoiding the screws in the layer(s) underneath.



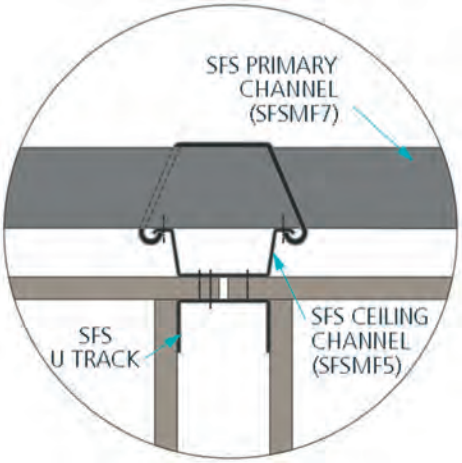
CEILING LIFT

With greater airtightness requirements in buildings causing varying air pressures, ceiling lift can be experienced.

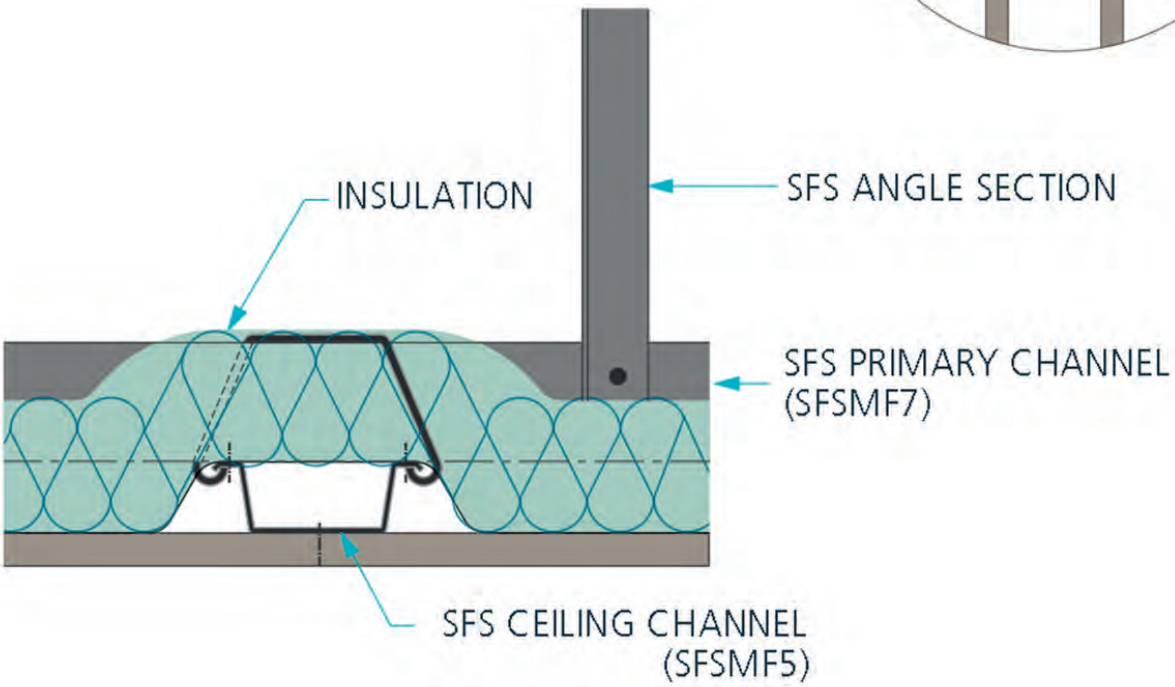
As a result, the designer should incorporate a pressure release system where possible. Where sufficient pressure relief cannot be designed in, it is recommended to screw-fix the SFS Ceiling Channel to the SFS Primary channel using two screws per connection

INSULATION

Insulation depending on type required to meet both thermal and acoustic performance requirements can be installed in a continuous layer between the Primary Channels and over Ceiling Channels and boards.



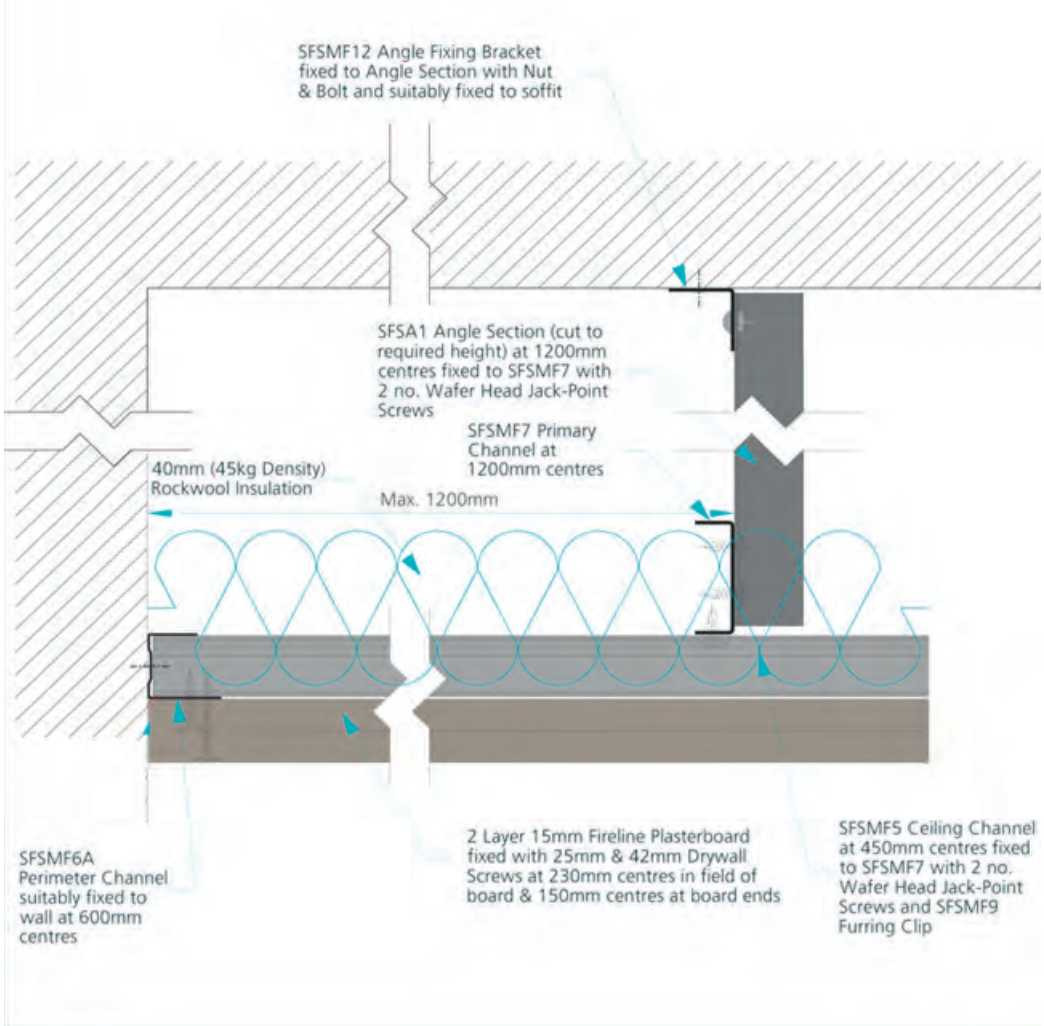
JUNCTION OF PARTITION HEAD TO CEILING

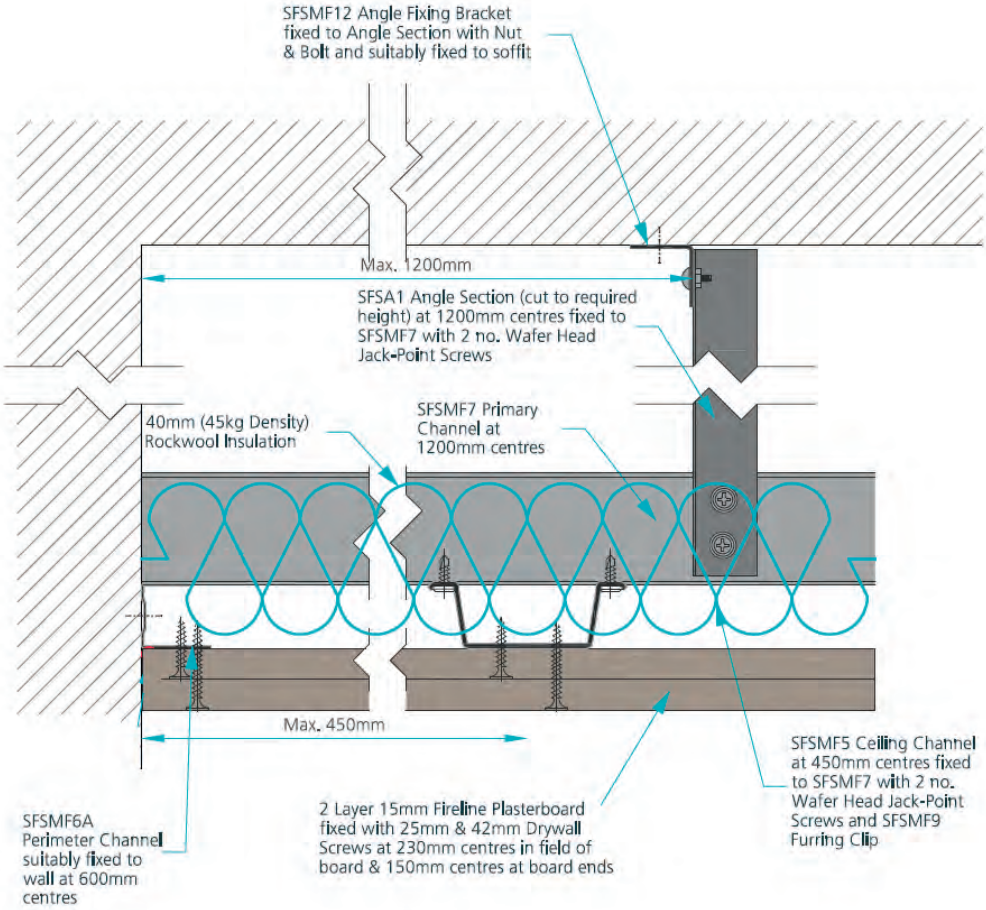


FIRE RESISTANCE

SFS MF Ceiling Systems have been independently tested to BS476 requirements. A 60 minute fire rating has been obtained between the ceiling and the void based on the build-up illustrated in the drawings below:-

Please contact SFS for the associated Fire Report)

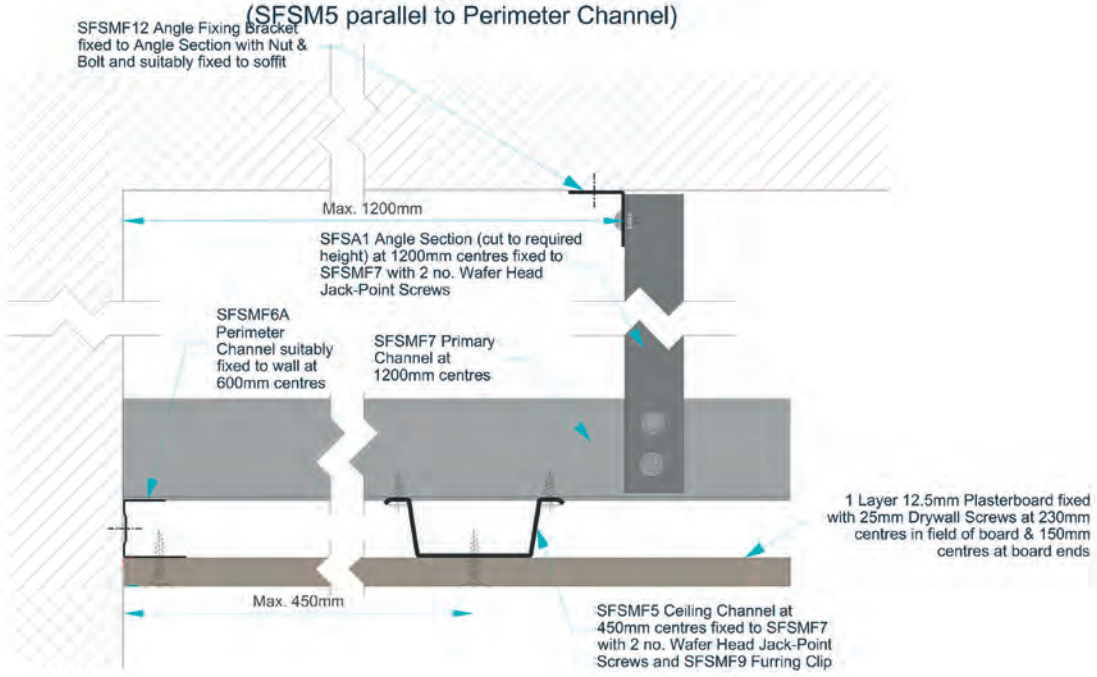



SFSMF12 Angle Fixing Bracket fixed to Angle Section with Nut & Bolt and suitably fixed to soffit
Max. 1200mm
SFSA1 Angle Section (cut to required height) at 1200mm centres fixed to SFSMF7 with 2 no. Wafer Head Jack-Point Screws
40mm (45kg Density) Rockwool Insulation
SFSMF7 Primary Channel at 1200mm centres
Max. 450mm
SFSMF5 Ceiling Channel at 450mm centres fixed to SFSMF7 with 2 no. Wafer Head Jack-Point Screws and SFSMF9 Furring Clip
SFSMF6A Perimeter Channel suitably fixed to wall at 600mm centres
2 Layer 15mm Fireline Plasterboard fixed with 25mm & 42mm Drywall Screws at 230mm centres in field of board & 150mm centres at board ends

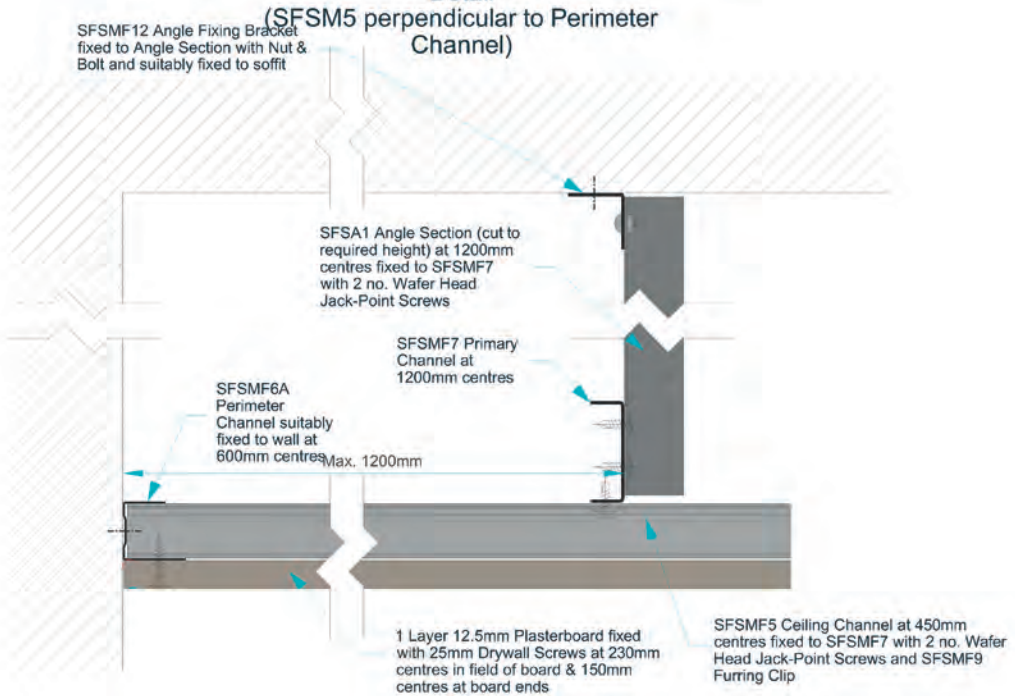
STANDARD MF CEILING DETAILS

All standard details are available for download from www.steelformedsections.ie

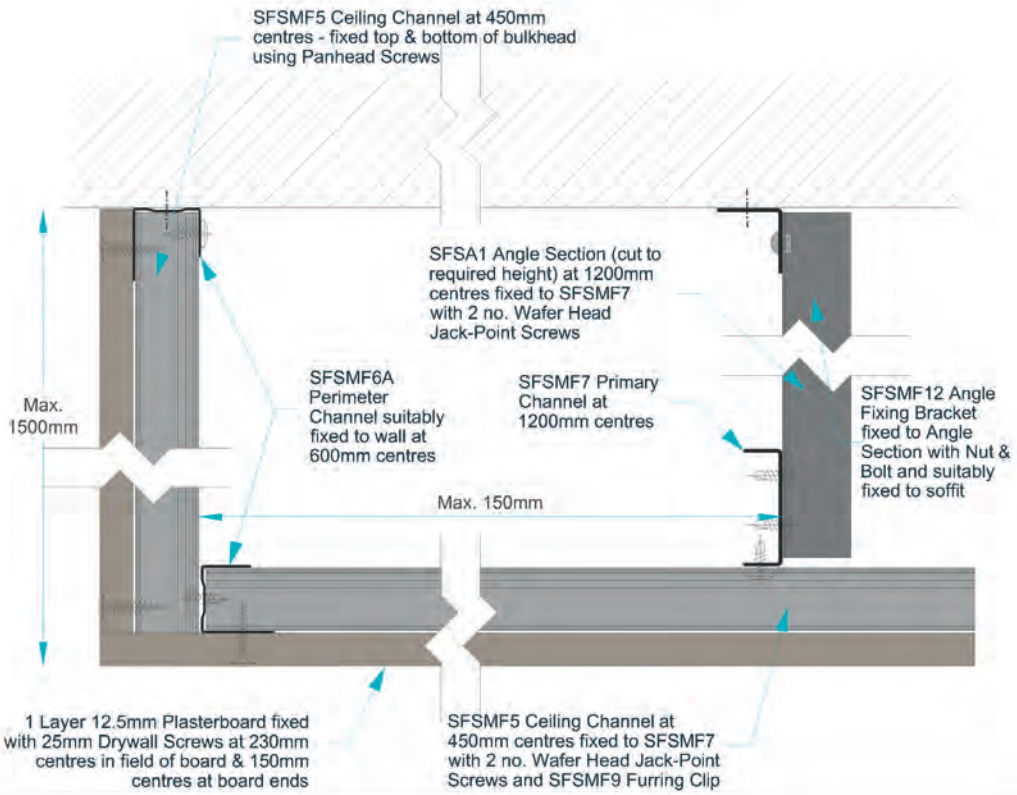
Typical Screw Fixed MF Ceiling Section Detail (SFSM5 parallel to Perimeter Channel)



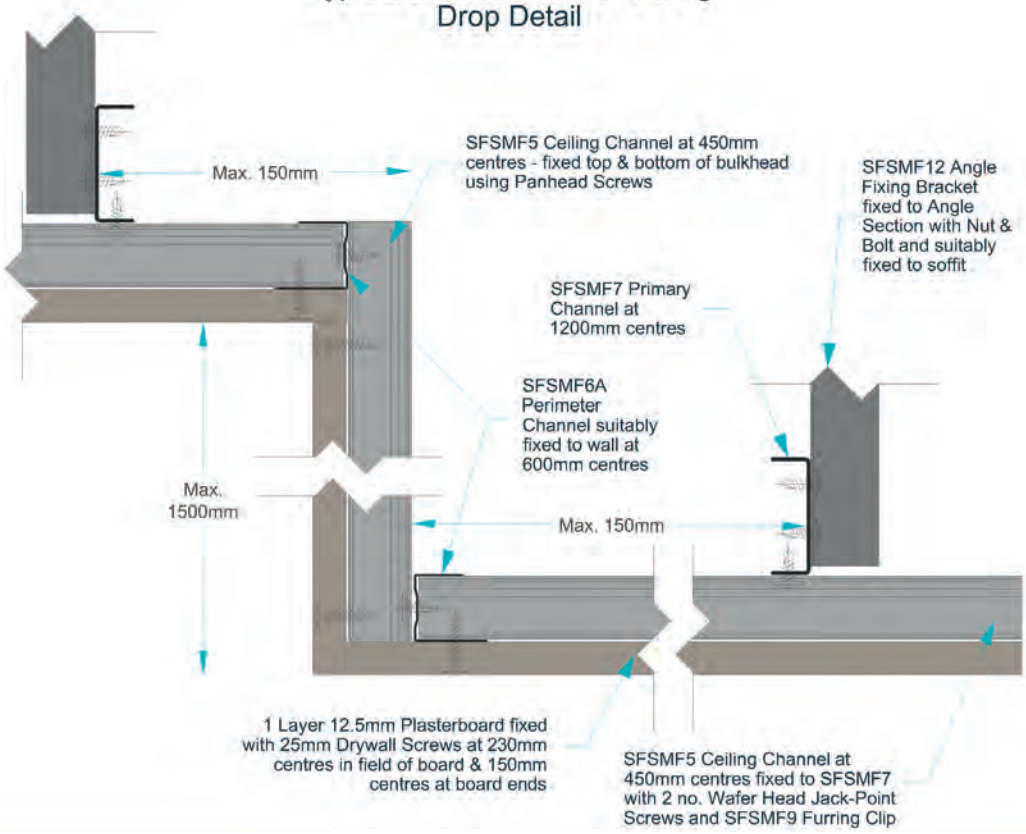
Typical Screw Fixed MF Ceiling Section Detail (SFSM5 perpendicular to Perimeter Channel)



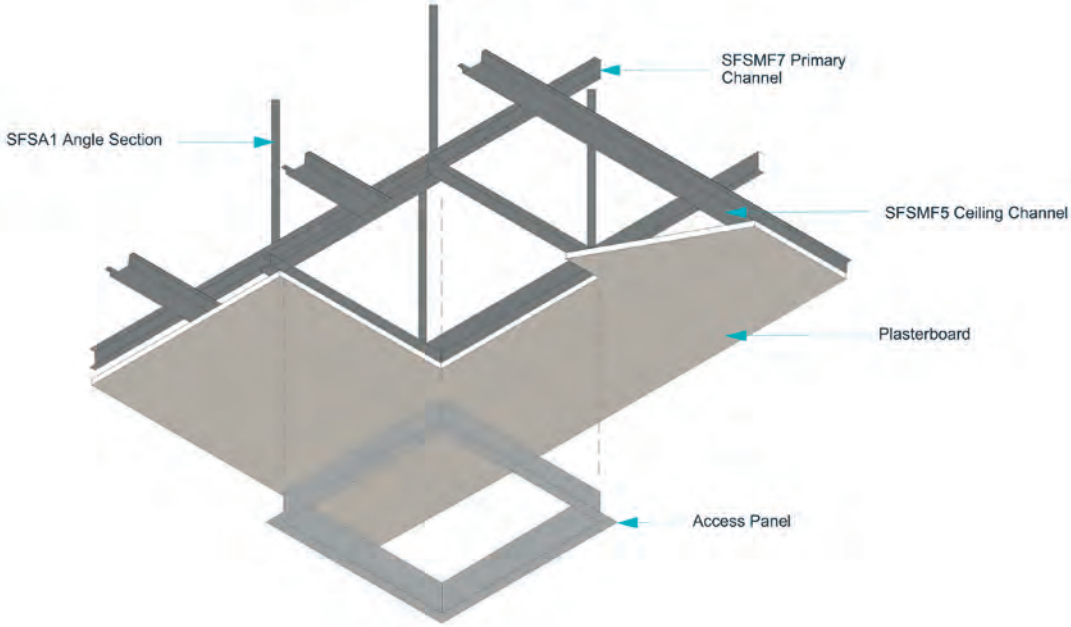
Typical Screw Fixed MF Ceiling Drop Detail



Typical Screw Fixed MF Ceiling Drop Detail

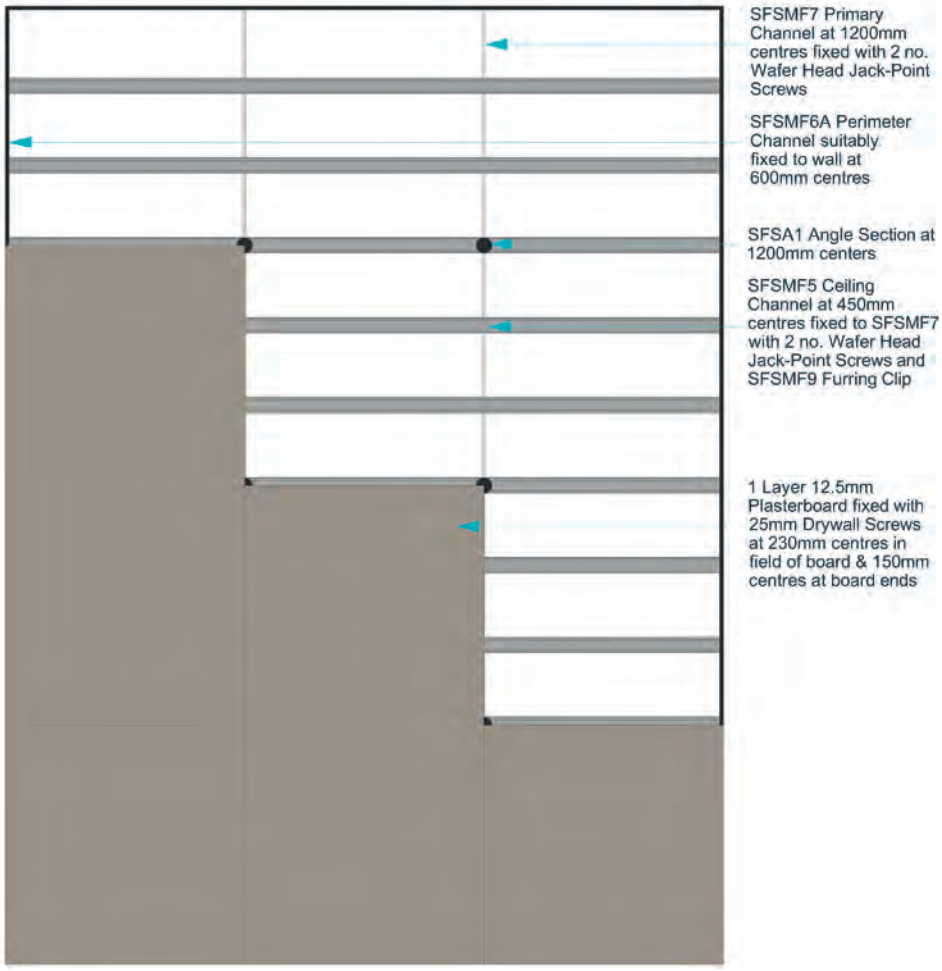


Typical MF Ceiling Access Panel Detail



Please Note : This is a standard drawing detail detailing a typical application for this system. It is therefore limited in it's capacity to convey all the information, details & specification necessary to comply with Building Regulations or to achieve specific requirements. Such details should always be confirmed by the designer/architect.

Typical MF Ceiling Plan

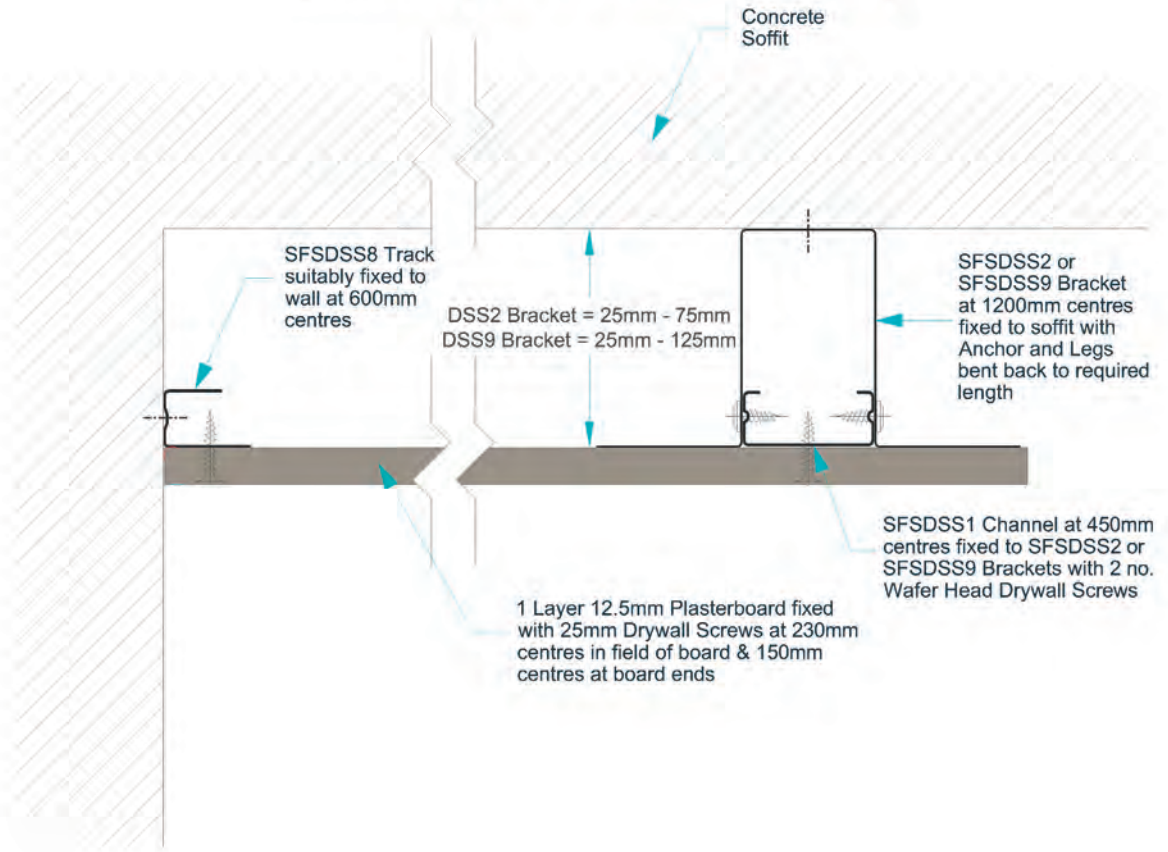


SFS CEILING LINING SYSTEMS

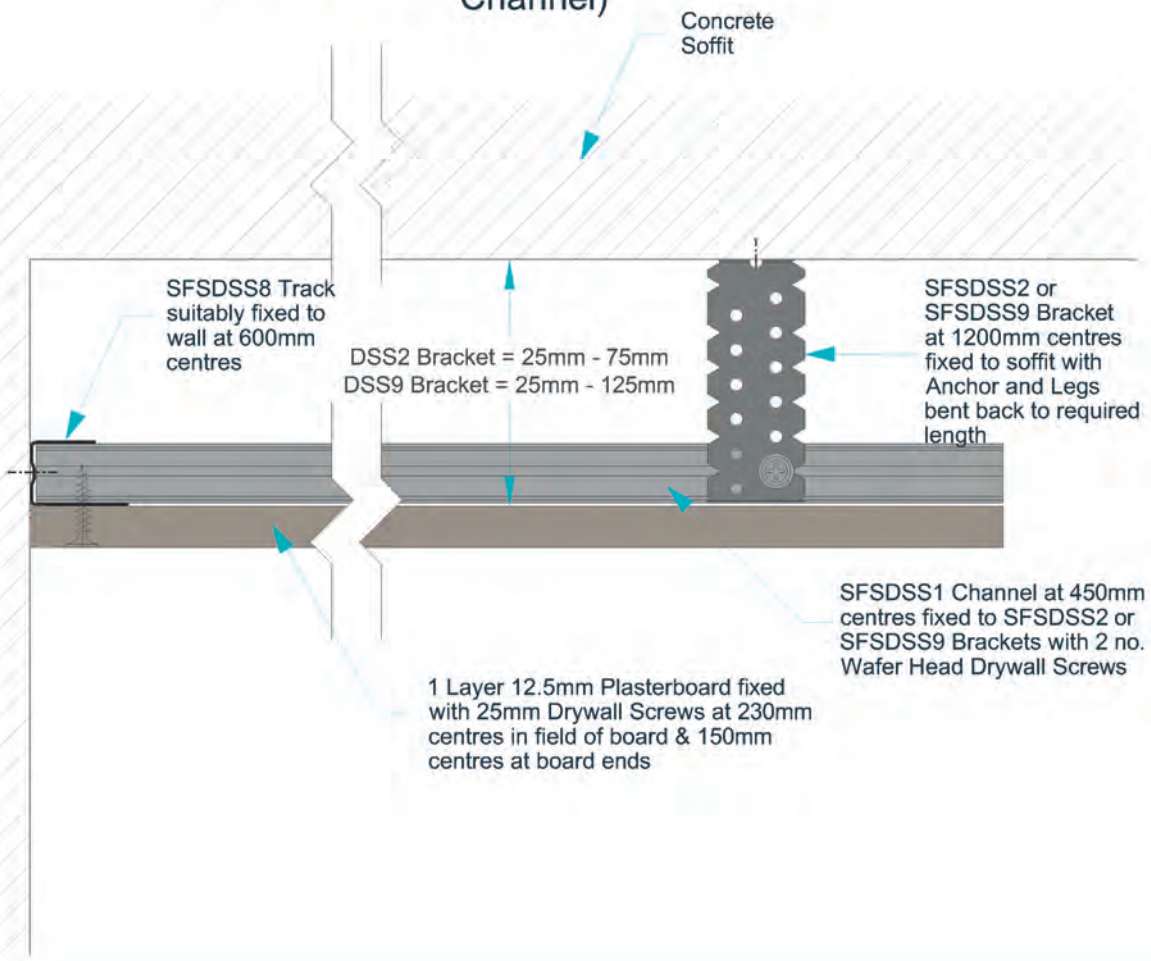
The SFS Ceiling Lining System is a quick, simple and cost-effective method when working with concrete soffits creating a true flat ceiling.

Plasterboard is fixed directly to the SFSDSS1 Liner Stud (positioned at 450mm max centres) with each Liner Stud connected to the concrete soffit using either the SFSDSS2 (Small) or SFSDSS9 (Large) brackets positioned at 1200mm centres. A void from 25mm to 125mm can be created for services or insulation for improved thermal and acoustic performances depending on the fixing bracket used.

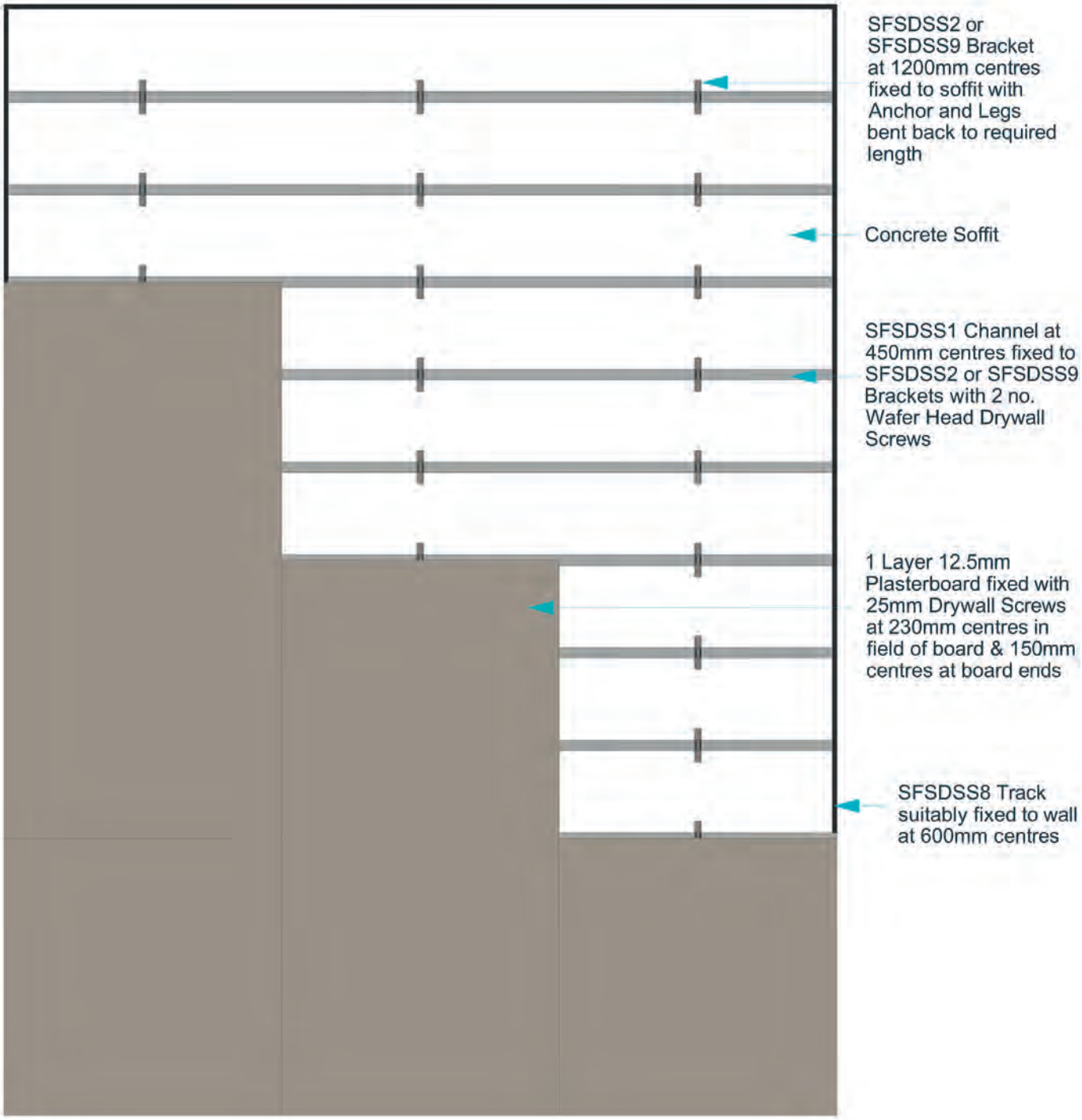
Typical SFS Ceiling Lining Detail
(SFSDSS1 parallel to Perimeter Channel)



Typical SFS Ceiling Lining Detail (SFSDSS1 Perpendicular to Perimeter Channel)



Typical Ceiling Liner Plan

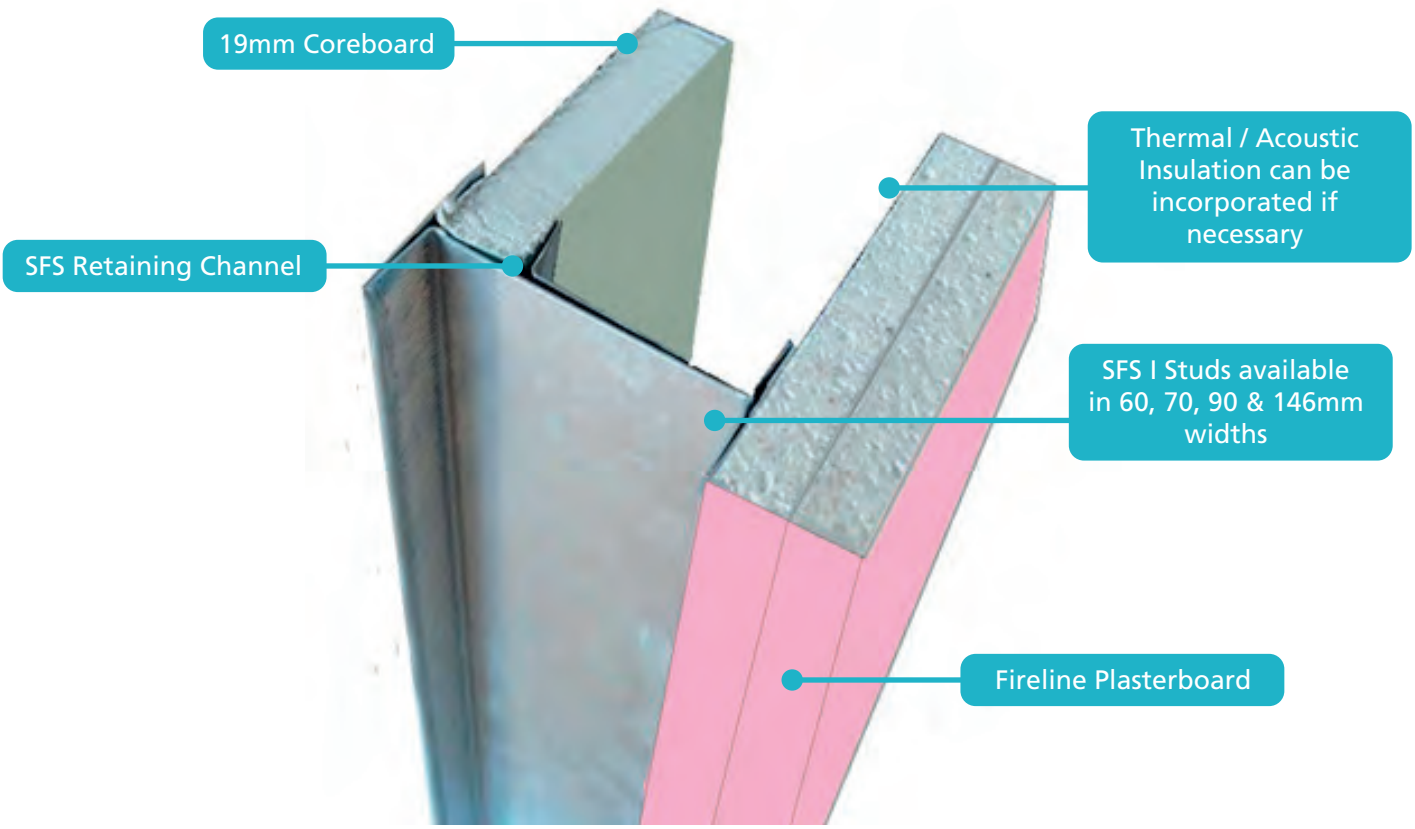


SFS SHAFTWALL SYSTEM

SFS Steel Formed Sections

BACKGROUND

The SFS ShaftWall system is a structure suitable for use in areas with confined spaces and have only limited access to one side, providing a fire resistant structure that is lightweight. There are a wide range of partition thicknesses available for heights up to 7.9m. The system is very economical and can be erected very easily. An A1 variant is available by replacing board with Glasroc product.

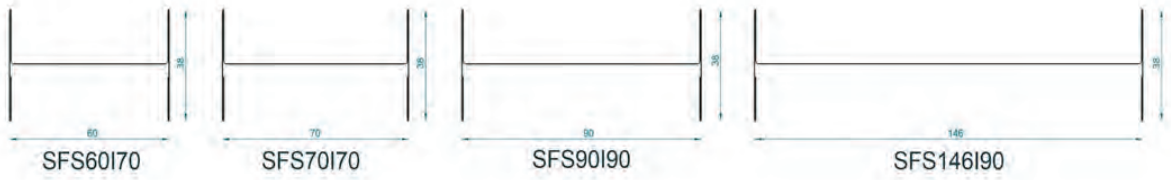


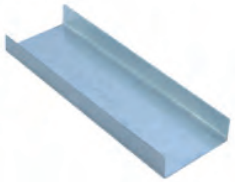
BENEFITS

- The metal system can be applied to areas where access is restricted to one side
- The system can provide up to 120 minutes of fire performance
- High level of acoustic performance results achieved
- Easy assembly allows for faster installation times on site

SFS Steel Formed Sections

I Studs	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFS60I70	2700, 3000, 3600, 4200	0.70	10	100
	SFS70I70	3000, 3600, 4200	0.70	10	100
	SFS90I90	3600, 4200	0.90	5	100
	SFS146I90	4200, 5000, 6000	0.90	5	100
custom manufactured sizes available on request					



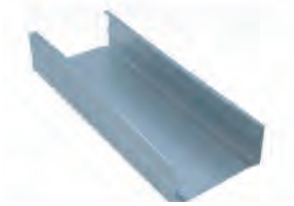
U Track STD (30)	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFST52	3000, 3600	0.50	10	100
	SFST72	3000, 3600	0.50	10	100
	SFST92	3000, 3600	0.50	10	100
	SFST148	3000, 3600	0.50	10	50
custom manufactured sizes available on request					

SFS Steel Formed Sections

U TRACK DEEP (50)	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSDT52	3000, 3600	0.60	10	100
	SFSDT72	3000, 3600	0.60	10	100
	SFSDT92	3000, 3600	0.60	10	100
	SFSDT148	3000, 3600	0.60	10	50
custom manufactured sizes available on request					

U TRACK EXTRA DEEP (70)	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSEDT72	3000, 3600	0.70	10	50
	SFSEDT92	3000, 3600	0.70	10	50
	SFSEDT148	3000, 3600	0.70	10	50
custom manufactured sizes available on request					

SFS Steel Formed Sections

RETAINING CHANNEL	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSRC35	2400	0.50	20	100
	SFSRC45	2400	0.50	20	100
	SFSRC67	2400	0.50	20	100

custom manufactured sizes available on request

SFS Steel Formed Sections

INSTALLATION GUIDELINES

FIXING OF FLOOR AND CEILING TRACKS

All tracks should be fixed to the floor and ceiling in the middle of the profile at 600mm centres with suitable fixings. For 92mm and 148mm wide profiles, we recommend two rows of suitable fixings at 600mm centres staggered by 300mm with each fixing 25mm in from the flange.

FIXING OF BOARDS

SHAFT SIDE COREBOARD LAYER

19mm Coreboard should be held within the stud web using the specified SFS retaining channel. The retaining channel is then screw fixed to the stud web at 300mm vertical centres. A strip of coreboard and flat strap should be positioned behind all horizontal coreboard joints as detailed in page 75.

ROOM SIDE SINGLE LAYER BOARDING

Plasterboard should be fixed at 300mm maximum centres to the framework with the appropriate screw length. Joints should be staggered from one side of the partition to the other. Fixing centres should be maintained by using flat strap behind all horizontal board joints.

ROOM SIDE MULTI LAYER BOARDING

Inner layers can be fixed at 600mm centres but outer layers must be fixed at 300mm centres to the metal framework. The second layer should be positioned with all joints staggered in relation to the first layer assuming the studs are fixed at 600mm centres. Fixing centres should be maintained by using flat strap behind the outer most board for all horizontal board joints of the outer layer.

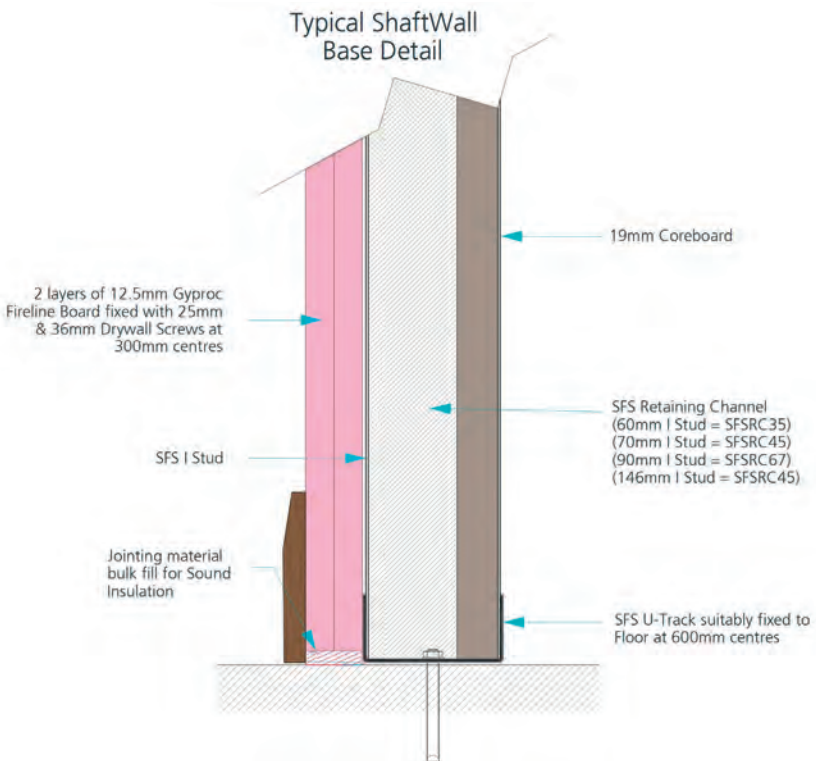
Please refer to table below for screw fixing lengths:-

SCREW FIXING LENGTHS	
Board Type	Fixing Length
1 x 12.5mm	25mm
1 x 15mm	25mm
2 x 12.5mm	25mm + 36mm
2 x 15mm	25mm + 42mm
3 x 15mm	25mm + 42mm +60mm

SFS SHAFTWALL SYSTEMS

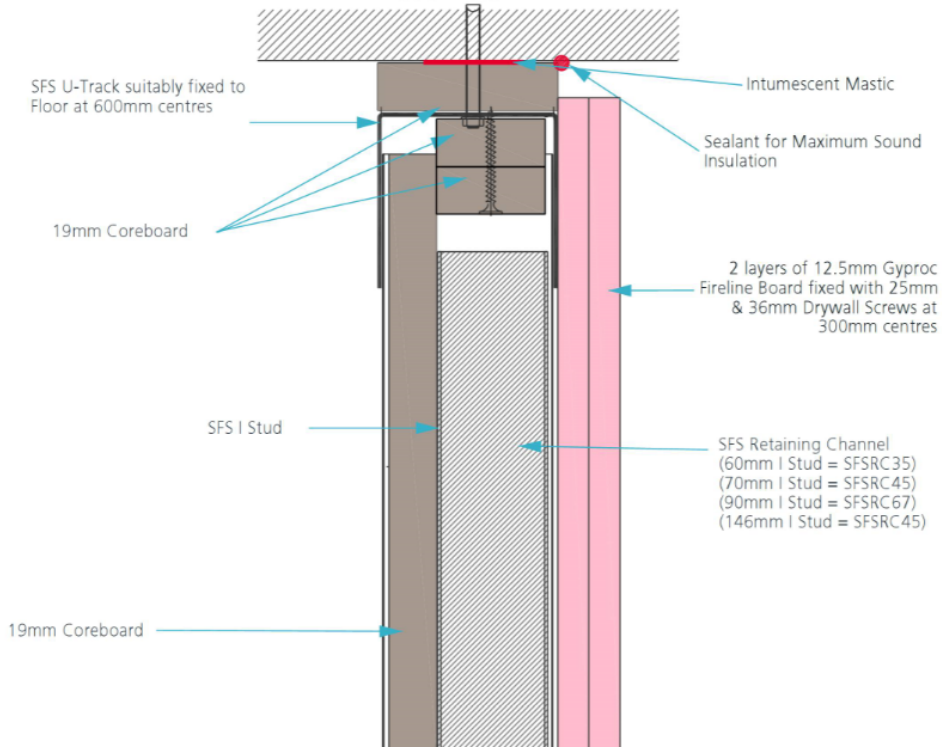
All standard details for 60mm 70mm, 90mm and 146mm SFS I Stud systems are available for download from www.steelformedsections.ie

SFS ShaftWall systems are constructed from SFS I Studs, typically boarded with 12.5mm & 15mm Fireline board, with a 19mm Coreboard inside the stud held into place with a SFS retaining Channel. This method of construction allows for fixing from one side in the ShaftWall with limited access situations. The SFS I Stud is fixed into an overall frame of either SFS Track in Standard, Deep or Extra Deep Specification.

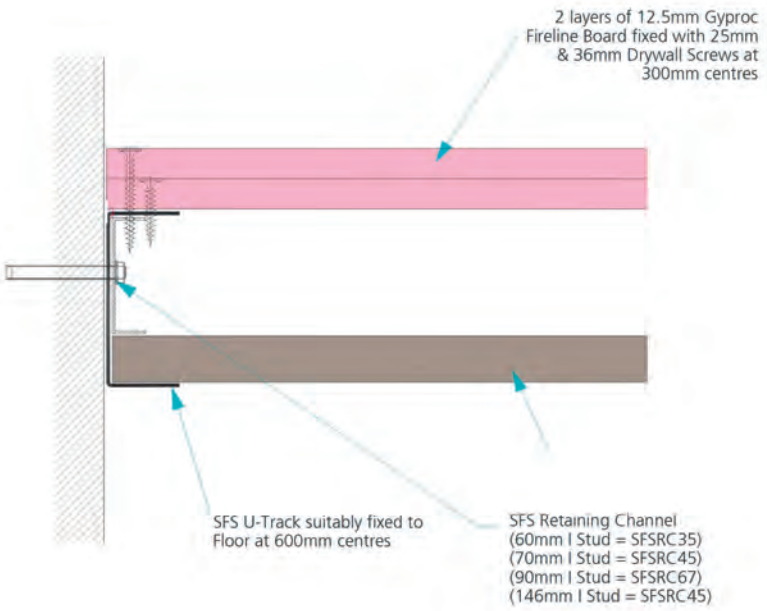


SFS Steel Formed Sections

Typical ShaftWall Head Detail

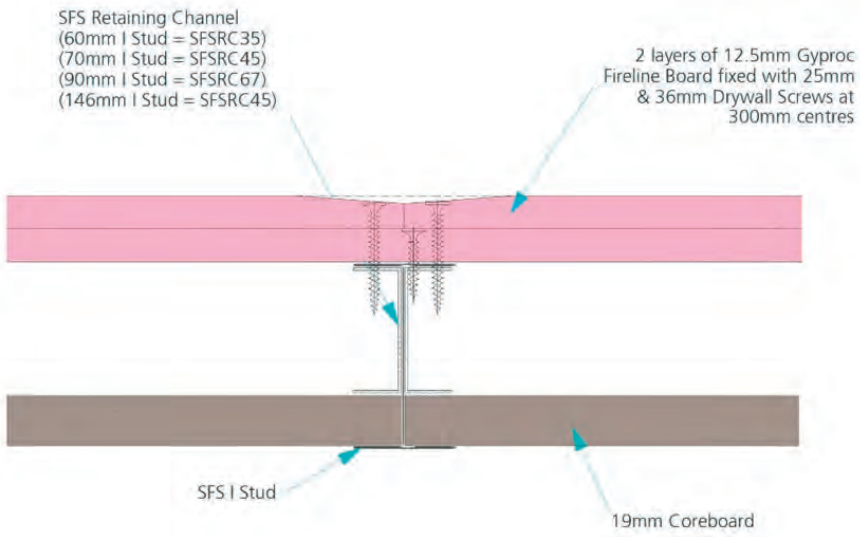


Typical ShaftWall Wall Abutment Detail

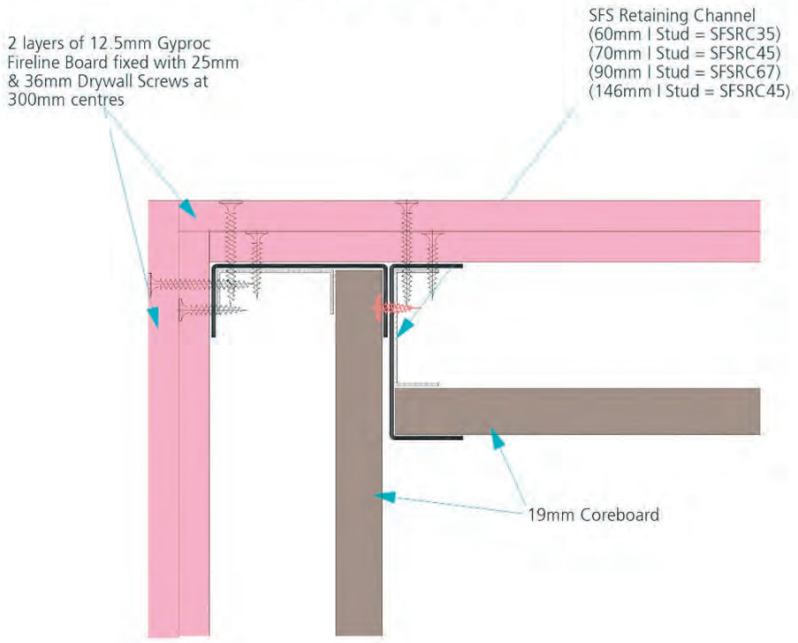


SFS Steel Formed Sections

Typical ShaftWall Intermediate Stud Detail

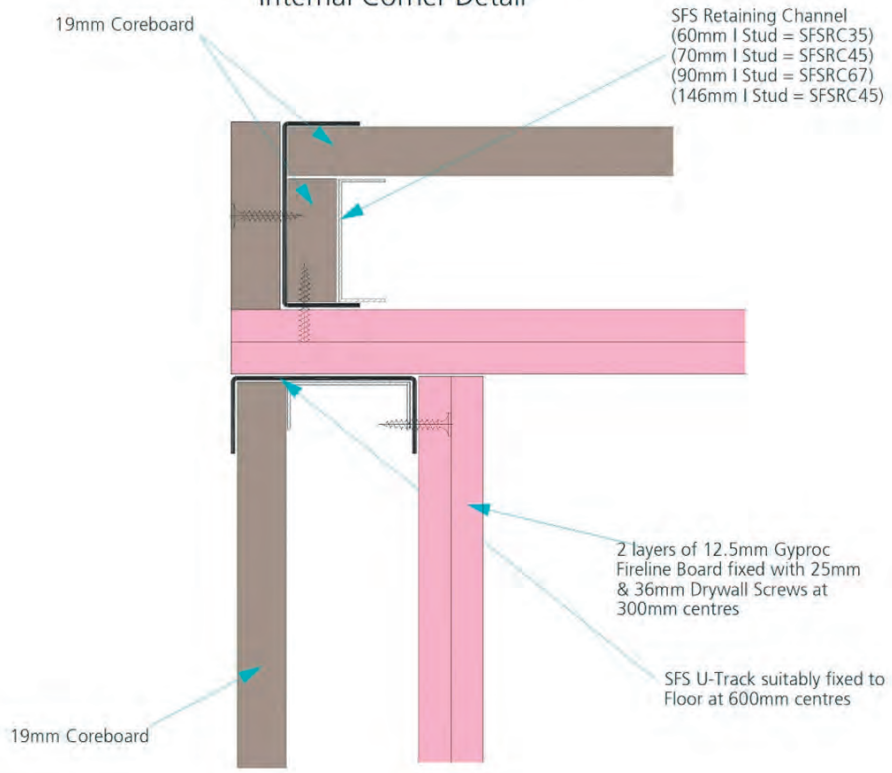


Typical ShaftWall External Corner Detail

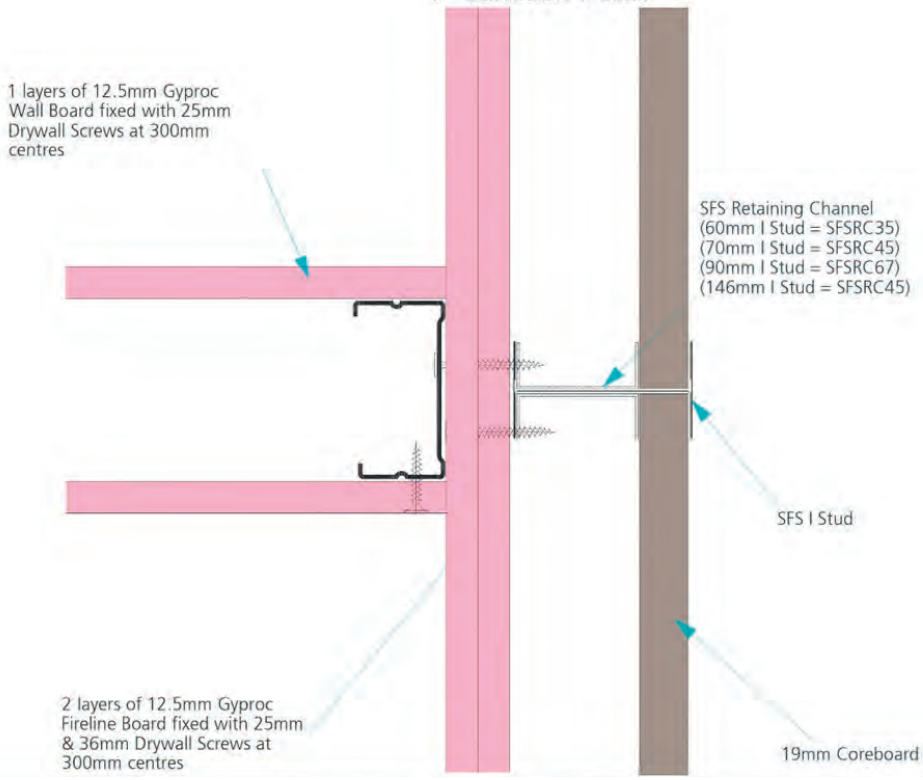


SFS Steel Formed Sections

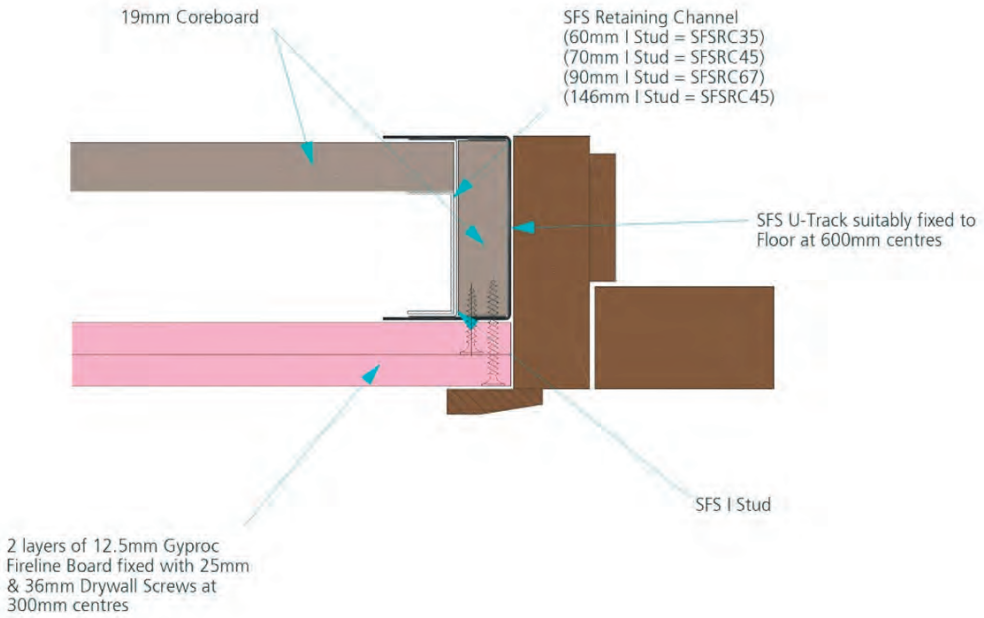
Typical ShaftWall Internal Corner Detail



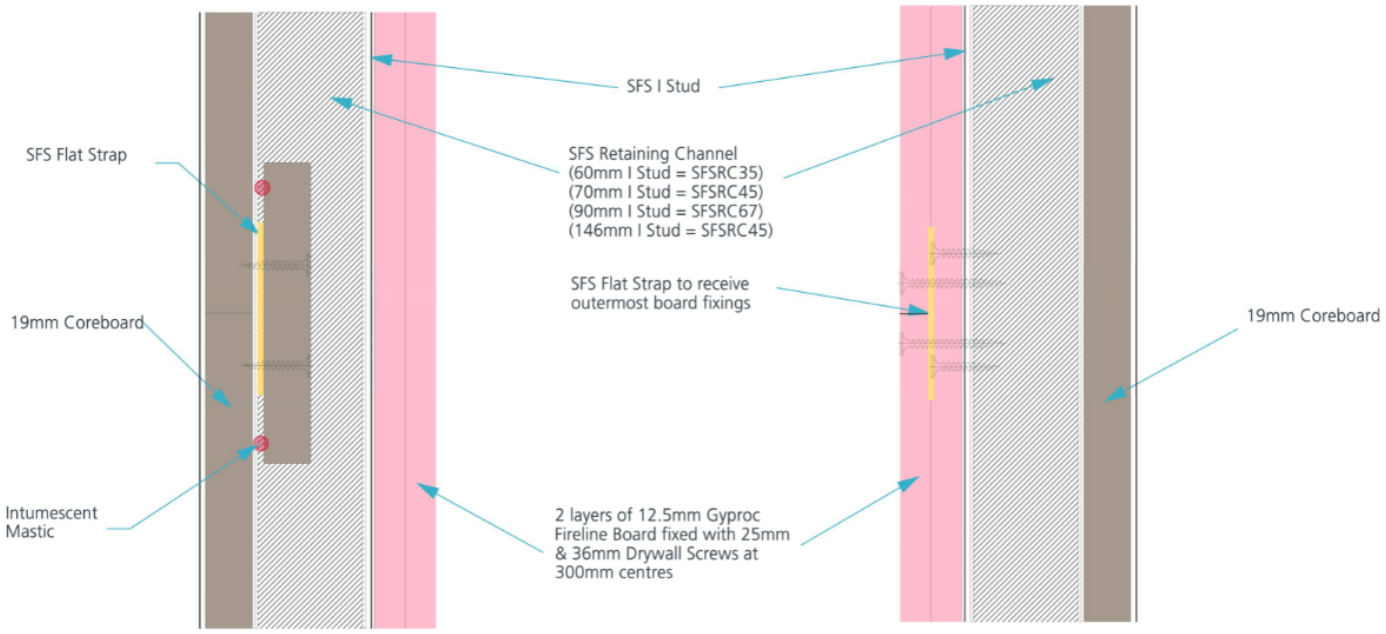
Typical ShaftWall T - Junction Detail



Typical ShaftWall Door Jamb Detail



Typical ShaftWall Horizontal Board Joint Detail



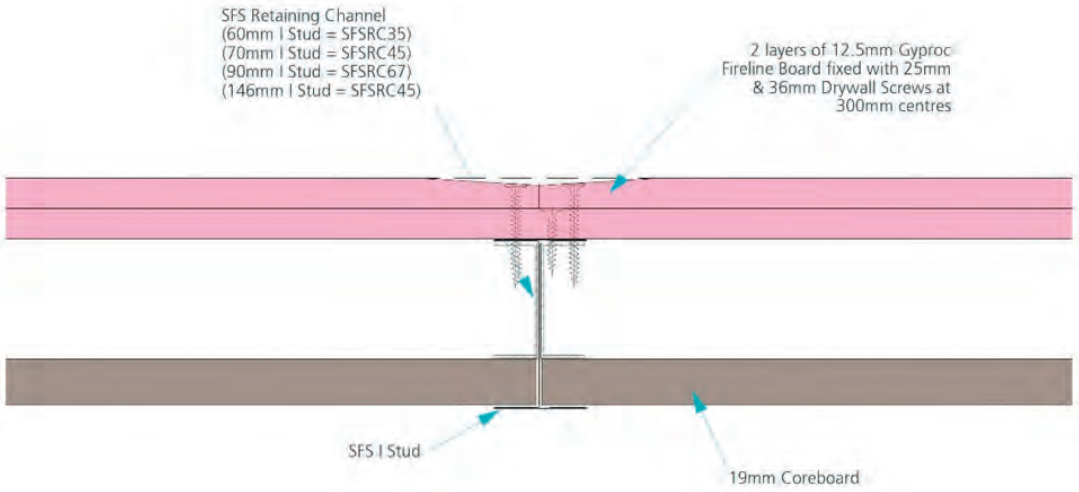
SFS SHAFTWALL SYSTEM PERFORMANCE GUIDE

The following Fire results have been obtained on behalf of Steel Formed Sections from Independent Test Bodies in accordance with the associated testing and assessment standards.

Stud Type	Description	Partition Thickness	Max Height	Duty Rating	Fire Rating	EN Fire Test No.	Comments
SFS60I70	19mm Coreboard Shaft Side 2 x 12.5mm Fireline Room Side	87mm	4.4m	Severe	60mins 90mins	SFS2145 SFS2144	Fireline exposed to Fire Coreboard exposed to Fire
SFS70I70	19mm Coreboard Shaft Side 2 x 12.5mm Fireline Room Side	97mm	4.4m	Severe	90mins 90mins	SFS2141 SFS2142	Coreboard exposed to Fire Fireline Exposed to Fire
SFS70I70	19mm Coreboard Shaft Side 3 x 15mm Fireline Room Side	117mm	4.5m	Severe	120mins 120mins	SFS2148 SFS2149	Coreboard exposed to Fire Fireline exposed to Fire

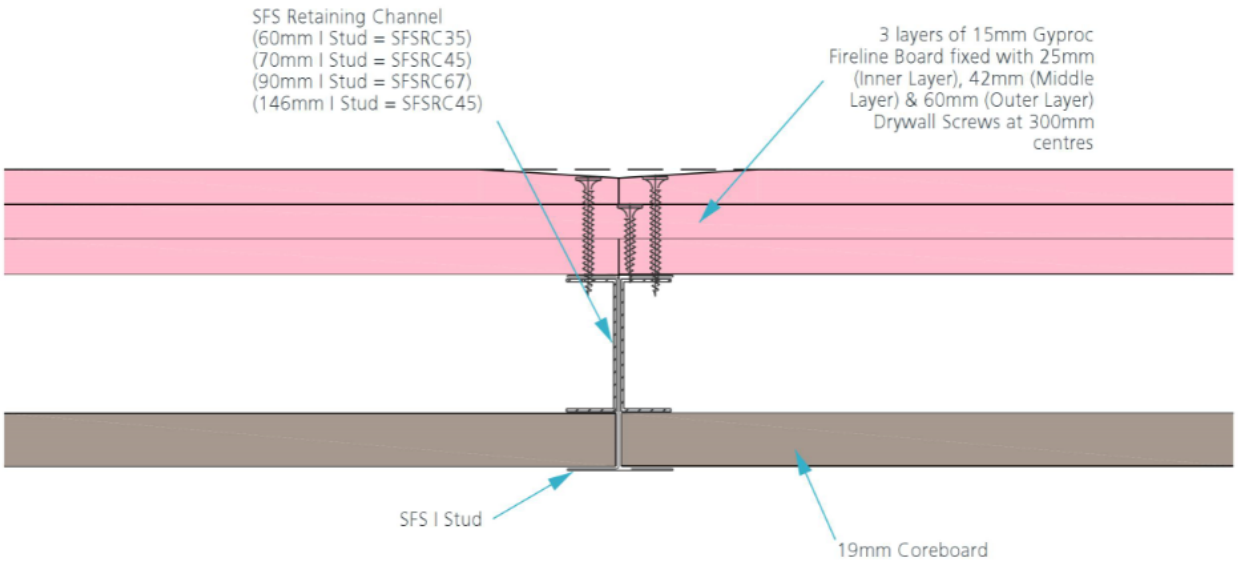
Typical Double Boarded Shaftwall Detail

(Please refer to Shaftwall Performance Guide Table Page 76 for Fire Rated Build-ups)



Typical Triple Boarded Shaftwall Detail

(Please refer to Shaftwall Performance Guide Table Page 76 for Fire Rated Build-ups)

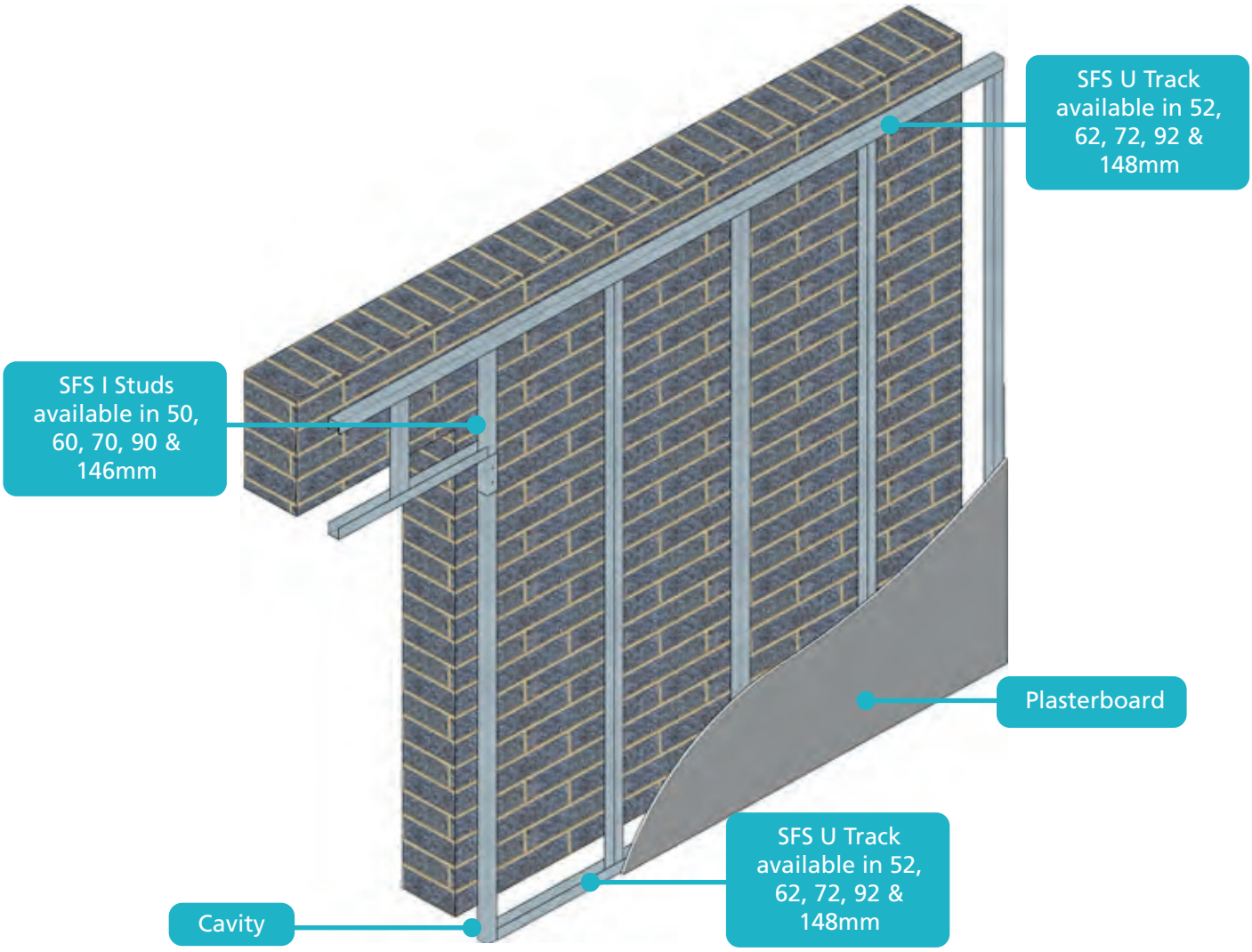


SFS INDEPENDENT WALL LINING SYSTEM

SFS Steel Formed Sections

BACKGROUND

The SFS Wall Lining System is a non-loadbearing construction which is independent from any internal wall or structure. The system is lightweight and is suitable where fixing to an existing feature is not possible. It can be incorporated into systems with new or existing walls to help increase the technical performance of the room.



BENEFITS

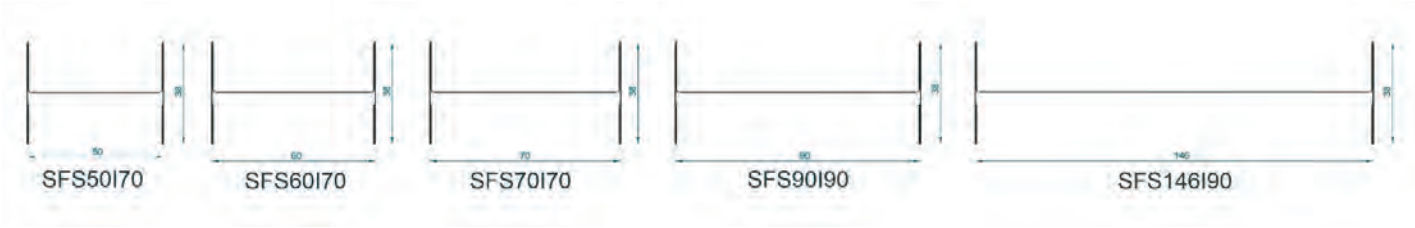
- The system can be completely independent and boarded from one side only
- The thermal bridging in minimized due to the independent construction
- Higher technical performances are achieved increasing acoustics, fire and thermal performance
- The system allows for a clean construction with the removal of irregularities in the external wall
- Services can be included easily with the size of cavity having no limitation.

SFS INDEPENDENT WALL LINING SYSTEM

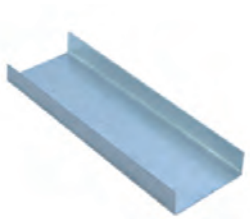
SFS Steel Formed Sections

I STUDS	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFS50I50	3000, 3600	0.50	10	100
	SFS50I70	3000, 3600	0.70	10	100
	SFS60I50	2700, 3000, 3600, 4200	0.50	10	100
	SFS60I70	2700, 3000, 3600, 4200	0.70	10	100
	SFS70I50	2700, 3000, 3600, 4200	0.50	10	100
	SFS70I70	3000, 3600, 4200	0.70	10	100
	SFS90I90	3600, 4200	0.90	5	100
	SFS146I90	4200, 5000, 6000	0.90	5	100

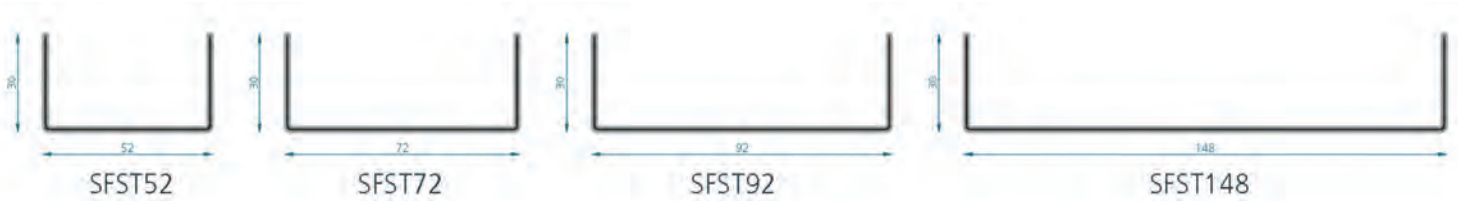
custom manufactured sizes available on request



U TRACK STUD (30)	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFST52	3000, 3600	0.50	10	100
	SFST62	3000, 3600	0.50	10	100
	SFST72	3000, 3600	0.50	10	100
	SFST92	3000, 3600	0.50	10	100
	SFST148	3000, 3600	0.50	10	50



custom manufactured sizes available on request

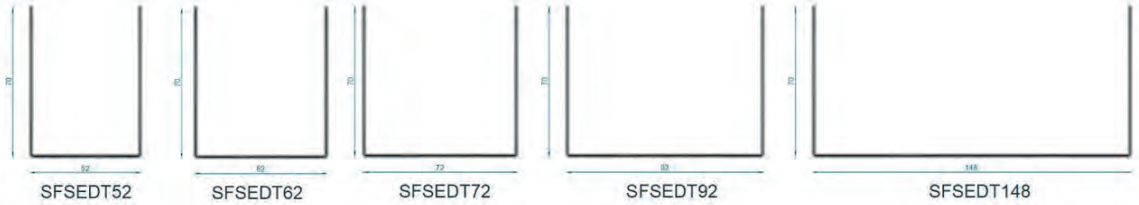


SFS INDEPENDENT WALL LINING SYSTEM

SFS Steel Formed Sections

U TRACK DEEP (50)	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSDT52	3000, 3600	0.60	10	100
	SFSDT62	3000, 3600	0.60	10	100
	SFSDT72	3000, 3600	0.60	10	100
	SFSDT92	3000, 3600	0.60	10	100
	SFSDT148	3000, 3600	0.60	10	50
custom manufactured sizes available on request					

U TRACK EXTRA DEEP (70)	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSEDT52	3000, 3600	0.50	10	50
	SFSEDT62	3000, 3600	0.50	10	50
	SFSEDT72	3000, 3600	0.50	10	50
	SFSEDT92	3000, 3600	0.50	10	50
	SFSEDT148	3000, 3600	0.50	10	50
custom manufactured sizes available on request					



SFS Steel Formed Sections

INSTALLATION GUIDELINES

FIXING OF FLOOR AND CEILING TRACKS

All tracks should be fixed to the floor and ceiling in the middle of the profile at 600mm centres with suitable fixings. For 92mm and 148mm wide profiles, we recommend two rows of suitable fixings at 600mm centres staggered by 300mm with each fixing 25mm in from the flange.

A timber sole plate may be required on uneven floors or where the partition is constructed prior to screeding to bring the base of the track up to the finished screed height. When dealing with a newly laid concrete or floor screed a damp proof membrane should be used to protect the U track from moisture.

FIXING OF BOARDS

SINGLE LAYER BOARDING

Plasterboard should be fixed at 300mm maximum centres to the framework with the appropriate screw length. Joints should be staggered from one side of the partition to the other. Fixing centres should be maintained by using flat strap behind all horizontal board joints.

DOUBLE LAYER BOARDING

Inner layers can be fixed at 600mm centres but outer layers must be fixed at 300mm centres to the metal framework. The second layer should be positioned with all joints staggered in relation to the first layer assuming the studs are fixed at 600mm centres. Fixing centres should be maintained by using flat strap behind the outer most board for all horizontal board joints of the outer layer.

Please refer to table below for screw fixing lengths:-

SCREW FIXING LENGTHS	
Board Type	Fixing Length
1 x 12.5mm	25mm
1 x 15mm	25mm
2 x 12.5mm	25mm + 36mm
2 x 15mm	25mm + 42mm
1 x 12.5mm & 1 x 15mm	25mm + 42mm

SFS Steel Formed Sections

FIXING OF I STUDS

Please reference table below for guidance on Stud Centres depending on system type and height:- -
(Based on limiting deflection of L/240 @ 200Pa)

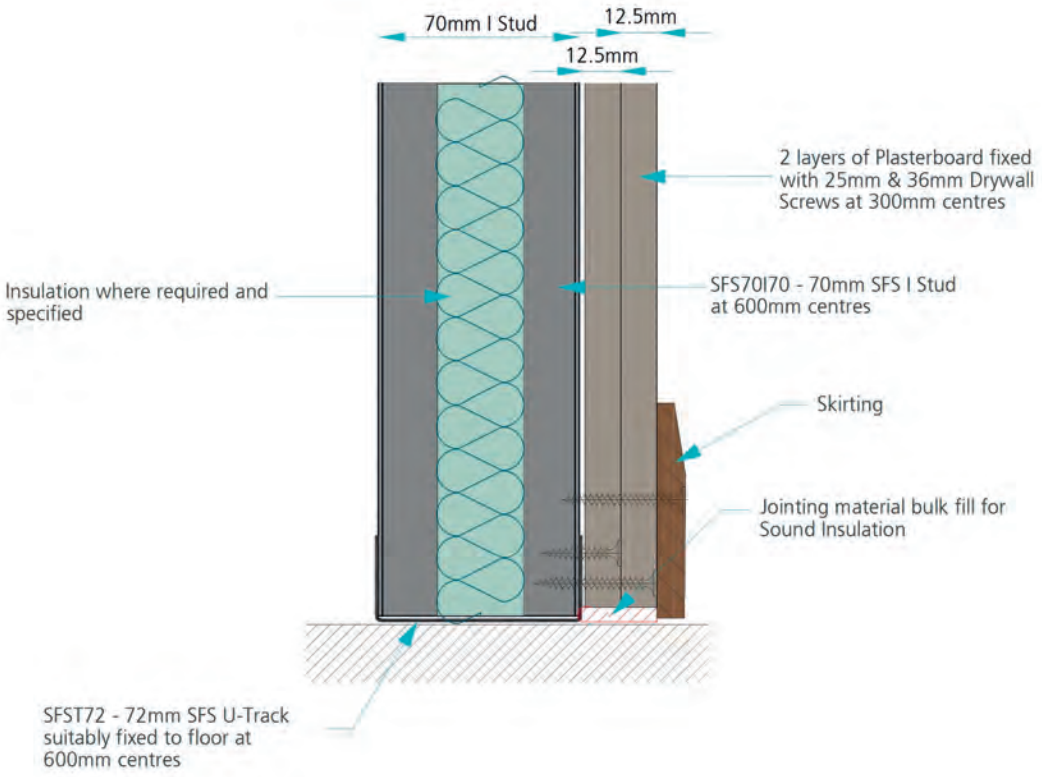
SFS50I50 - 50mm I Stud Centres Table			
Board Type	Number of Layers	600mm Centres	300mm Centres
12.5mm	1	2.4m	3.0m
15mm	1	2.4m	3.0m
12.5mm	2	2.7m	3.4m
15mm	2	2.8m	3.6m
SFS60I50 – 60MM I Stud Centres Table			
Board Type	Number of Layers	600mm Centres	300mm Centres
12.5mm	1	2.4m	3.0m
15mm	1	2.7m	3.4m
12.5mm	2	3.0m	3.8m
15mm	2	3.3m	4.3m
SFS60I70 – 60MM I Stud Centres Table			
Board Type	Number of Layers	600mm Centres	300mm Centres
12.5mm	1	3.0m	3.8m
15mm	1	3.3m	4.2m
12.5mm	2	3.6m	4.5m
15mm	2	3.9m	4.9m
SFS70I70 – 70MM I Stud Centres Table			
Board Type	Number of Layers	600mm Centres	300mm Centres
12.5mm	1	3.6m	4.5m
15mm	1	3.9m	4.9m
12.5mm	2	4.2m	5.2m
15mm	2	4.3m	5.2m
SFS90190 – 90MM I Stud Centres Table			
Board Type	Number of Layers	600mm Centres	300mm Centres
12.5mm	1	5.1m	6.4m
15mm	1	5.4m	6.8m
12.5mm	2	5.7m	7.1m
15mm	2	5.8m	7.2m
SFS146190 – 146MM I Stud Centres Table			
Board Type	Number of Layers	600mm Centres	300mm Centres
12.5mm	1	6.9m	8.7m
15mm	1	7.2m	9.1m
12.5mm	2	7.2m	9.0m
15mm	2	7.5m	9.5m

STANDARD FIXING DETAILS

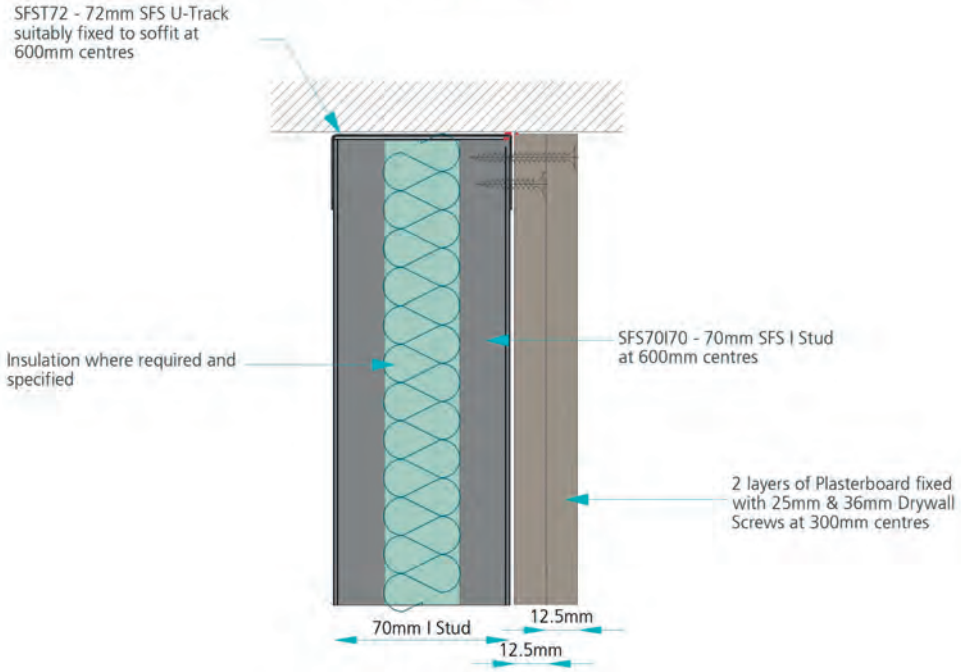
All standard details for 70mm, 90mm and 146mm SFS C Stud systems are available for download from www.steelformedsections.ie

Independent Wall Liners are constructed totally independent from an existing or new wall and are fixed only through the floor and soffit, allowing for reduction in moisture as no contact is made with the wall. This system is ideal for situations where fixing into existing or new wall is not possible allowing for ease of construction. This is also ideal for commercial buildings allowing cavities behind boards to allow for services.

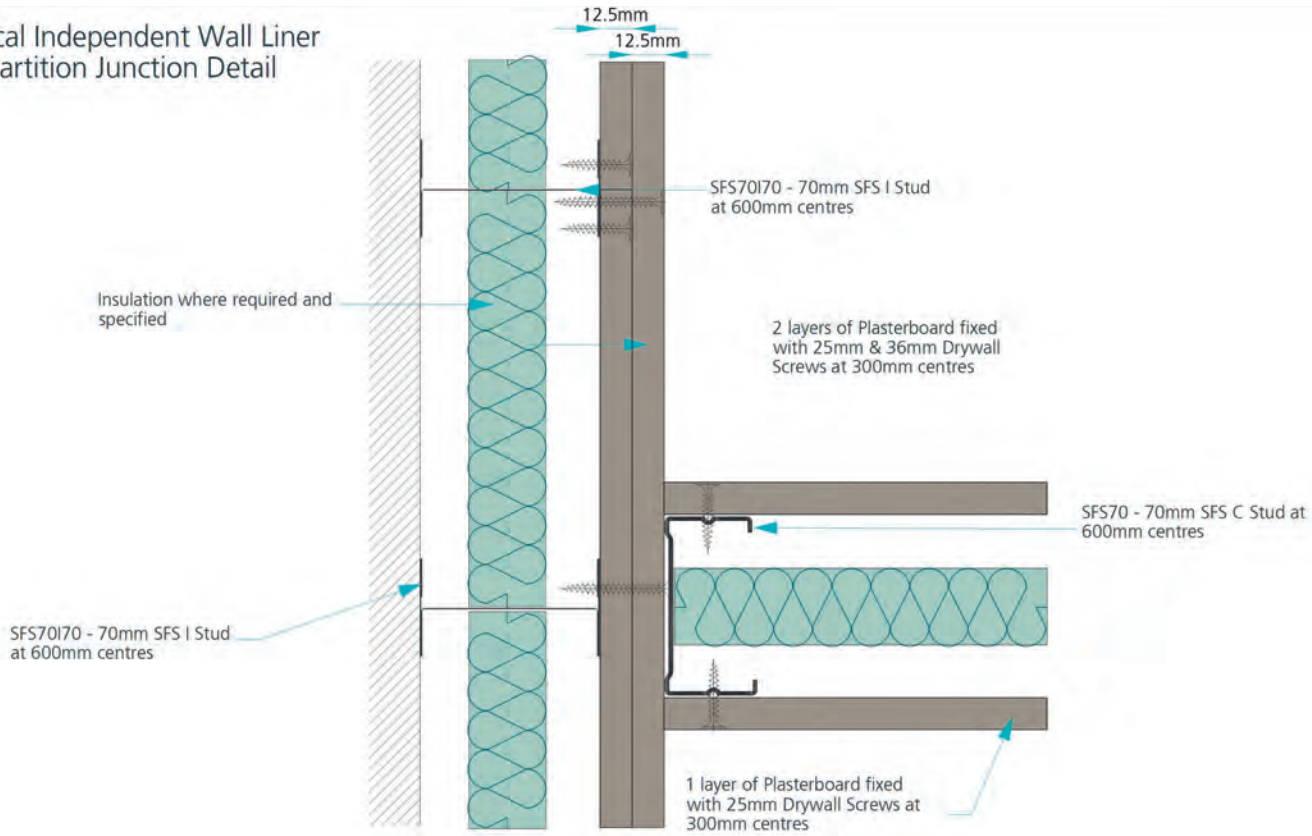
Typical Independent Wall Liner Base Detail

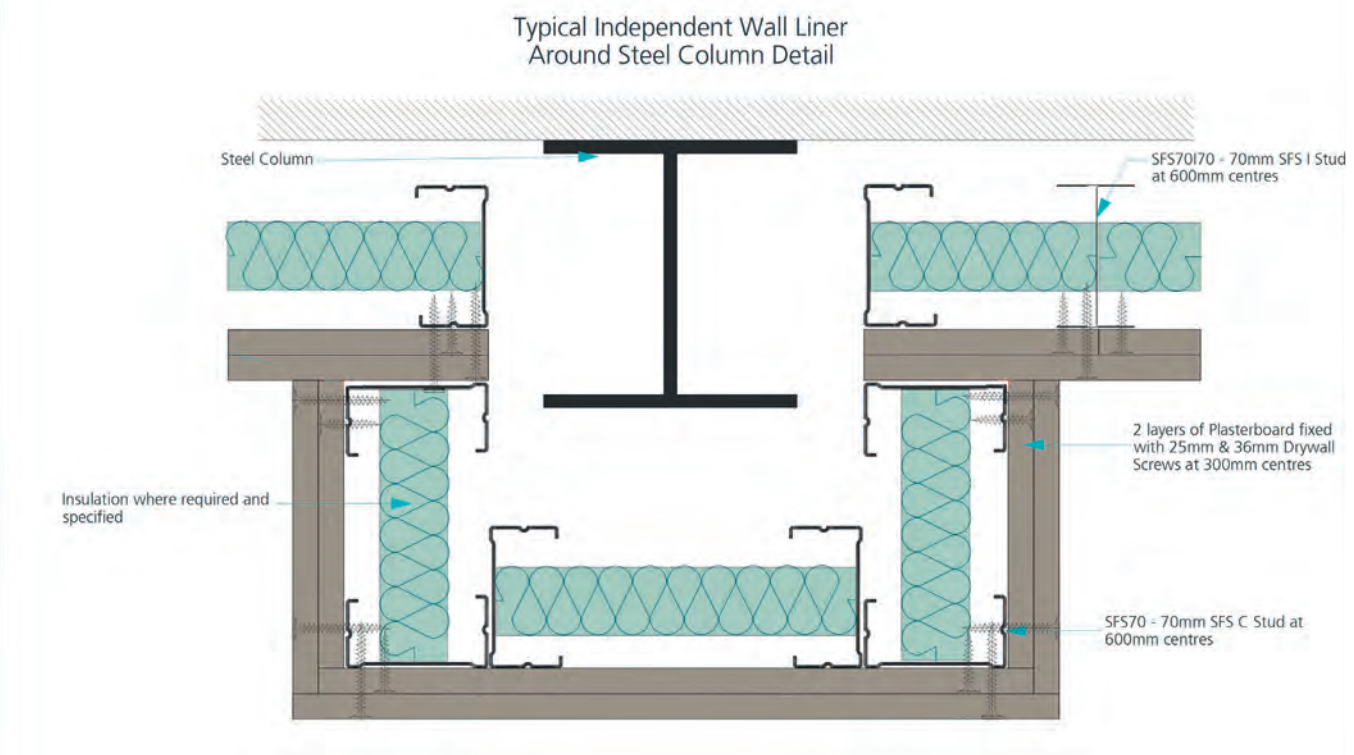


Typical Independent Wall Liner Head Detail



Typical Independent Wall Liner Partition Junction Detail

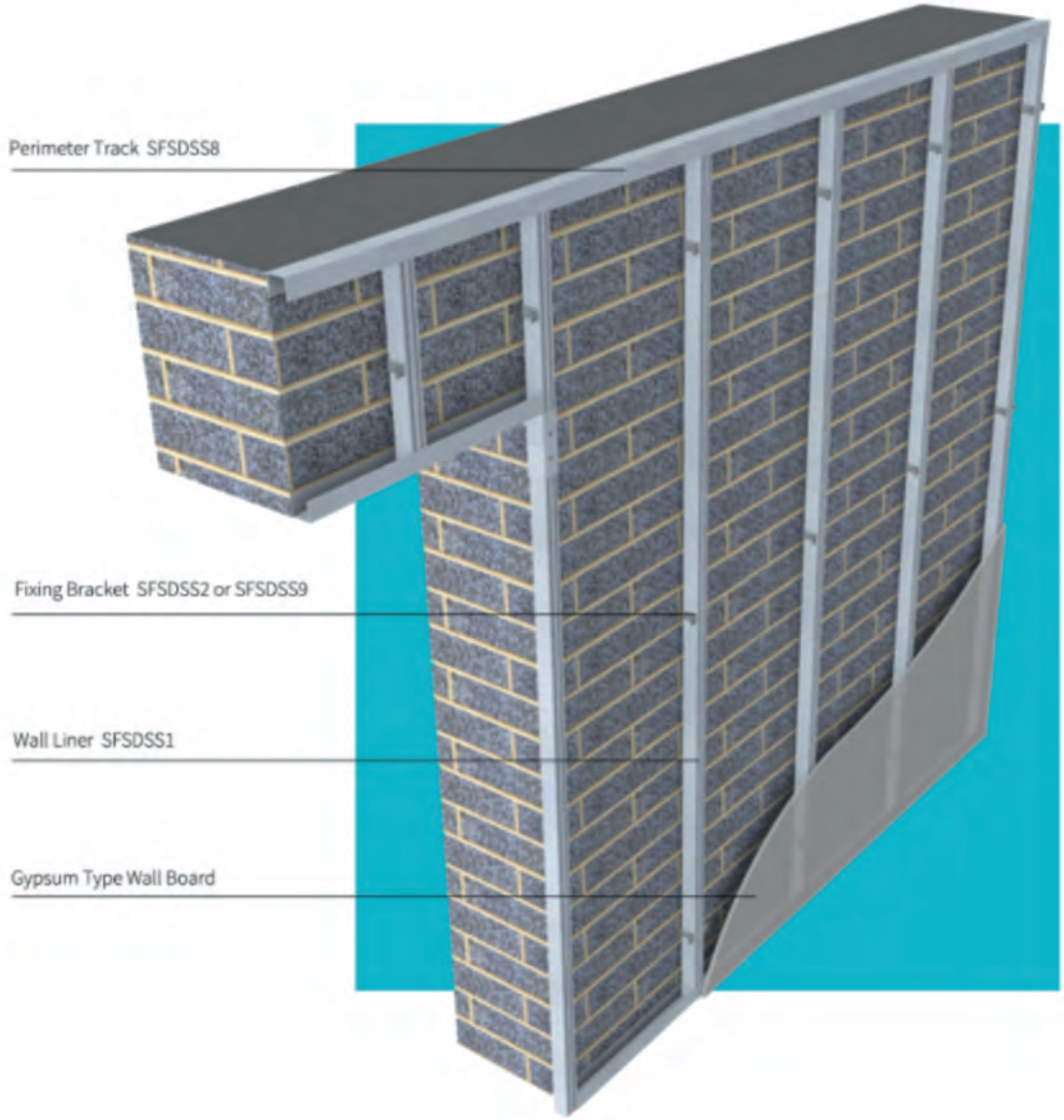



Typical Independent Wall Liner
Around Steel Column Detail
Steel Column
SFS70I70 - 70mm SFS I Stud at 600mm centres
2 layers of Plasterboard fixed with 25mm & 36mm Drywall Screws at 300mm centres
Insulation where required and specified
SFS70 - 70mm SFS C Stud at 600mm centres

SFS WALL LINING SYSTEM

BACKGROUND

The SFS Wall Lining System is suitable for use in both dry lining commercial and domestic buildings. It is a quick, simple and cost-effective system where there are even and uneven surfaces. A cavity is created between the plasterboard and wall, ranging from 25mm to 125mm, allowing either thermal or acoustic insulation to be incorporated. To be completely effective before installation it is necessary to treat all walls for any damp and a secure fixing into the existing wall is essential when installing the wall liner.



SFS WALL LINING SYSTEM

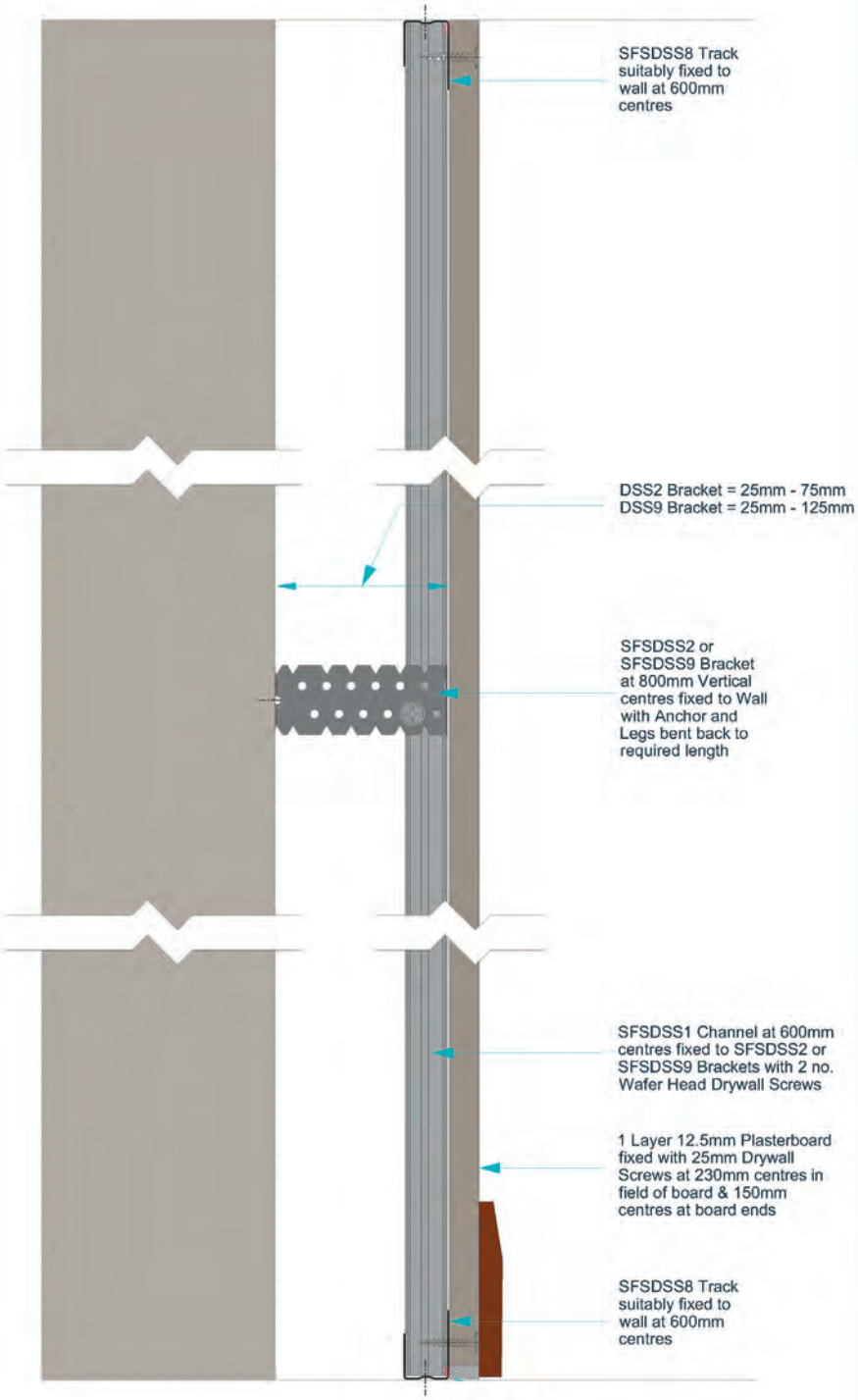
SFS Steel Formed Sections

Wall Liner System	Code	Description/Length (MM)	Gauge	Pack Size	Pallet Size
	SFSDSS1	Wall Liner Stud 2400, 2700, 3000, 3600	0.50	10	200
	custom manufactured sizes available on request				
	SFSDSS8	Wall Liner Track 3000, 3600	0.50	10	400
	custom manufactured sizes available on request				
	SFSDSS2	Small Bracket	0.90	100	N/A
	SFSDSS9	Large Bracket	0.90	100	N/A
	SFSDSS3	Connector	N/A	100	N/A

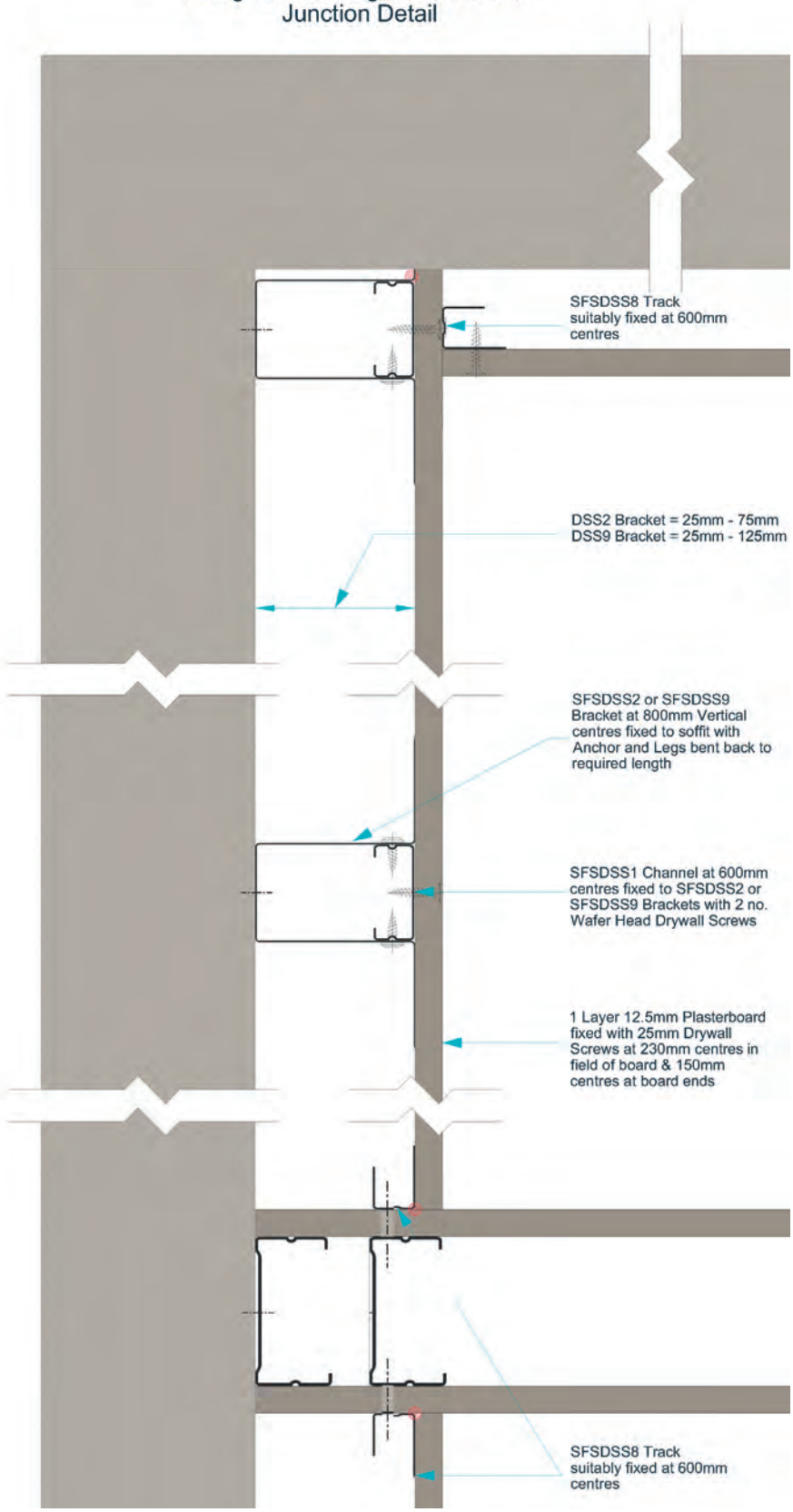
BENEFITS

- The SFS Wall Lining System can be used with all types of plasterboard
- Metal stud is dimensionally stable and will not twist or bow.
- Provides a secure and dry system using the fixings supplied
- All services can be easily installed behind the wall lining system
- The acoustic and thermal insulation values can be dramatically improved by placing mineral wool or fiberglass within the cavity

Typical SFS Wall
Lining Side Elevation



Typical SFS Wall
Lining Internal Angle and Partition
Junction Detail



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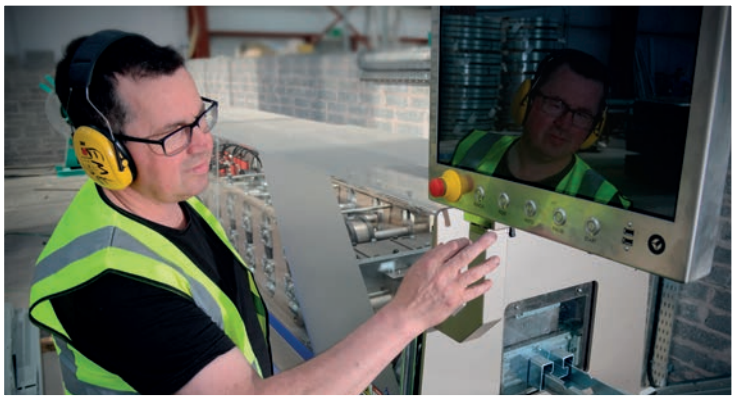
SFS Steel Formed Sections



SFS Steel Formed Sections

SFS INTERNAL SYSTEMS

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