Health & Safety

Symbols in this user manual

Warning/Caution! ⚠️

General

Please read this manual carefully in advance and make it accessible to all persons involved in a suitable and appropriate place. We point out that not observing the instructions in this document may affects the warranty.

It is not permissible to make changes or modify this product other than those specified in this document.

Personnel

Work should be carried out by a competent person.

PPE ⚠️

Appropriate personal protective equipment should be used. All operatives should follow guidance for the specific building site. We recommend the following: Safety shoes or boots, work gloves, eye protection, helmet, high viz clothing, hearing protection, face mask.

Handling and Storage

No special precautions are required. When handling air diffusers / grilles, but they should always be treated with care. The products do not fall within the scope of COSHH regulations.
Grilles / Diffusers should be stored in a dry ambient location and protected from dust & impact damage.

Maintenance

These are static units without moving parts therefore maintenance is confined to cleaning.

To remove significant amounts of lint etc from the unit a vacuum cleaner with a soft brush head may be used.

Powder coated surfaces should be washed with a warm water solution of mild detergent or suitable proprietary cleaning agent.

Abrasive cleaners or those containing ketones, esters, acids, alkali or alcohol should not be used.

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260107   V1.0   Swegon reserves the right to alter specifications.

Plasterboard ceiling Installation

Installed After Hard Ceiling Installation

Video guidance: https://www.youtube.com/watch?v=EwtGFyEIUDA

Construct Ceiling FrameWork

- Before installing plasterboard, a framed opening must be constructed to support the FlowBar Diffuser.

- It is recommended that the framework be continuous to accommodate the Hard Ceiling Clip spacing requirements.

- The framing material must be suitable to hold the Diffuser in place when attached with screws through the FlowBar Mounting Clips. The width of the framed opening required depends on the model of FlowBar being installed. The frame opening width dimension, 'W', is listed in Table 1.

NOTE: If it appears that it will be difficult to install plenums after the opening is framed and FlowBar installed, then use wires to support the Plenums above the framework first.
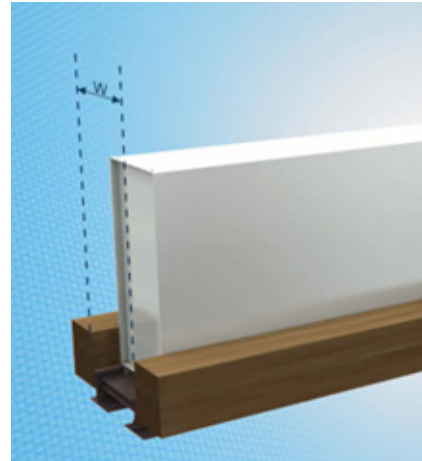
| Frame Opening Dimensions	
FlowBar Model	Frame opening 'W'
FL-10	83
FL-15	108
FL-20	133
FL-25	159
FL-30	184

Attach Mounting Clips

- Hard Ceiling Clips are shipped loose for field attachment to the FlowBar Diffuser.

- Slide the Hard Ceiling Clips into either side keyway of each frame rail as per chosen installation method.

- Position the clips at a maximum of 300mm intervals along the Diffuser frame.

- The Hard Ceiling Clips must be secured to a framing member.
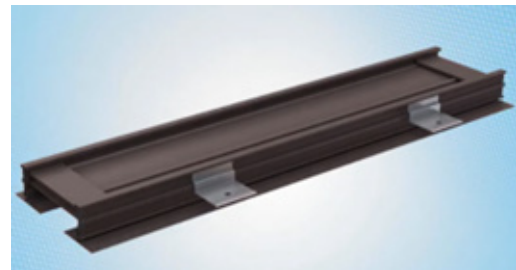
Attach Diffuser To Ceiling Frame

- Lift the FlowBar Diffuser into the framed opening and secure the Mounting Clips to the frame with screws as shown.

- If multiple sections of FlowBar are required, repeat previous step by lifting additional sections into the framed opening.

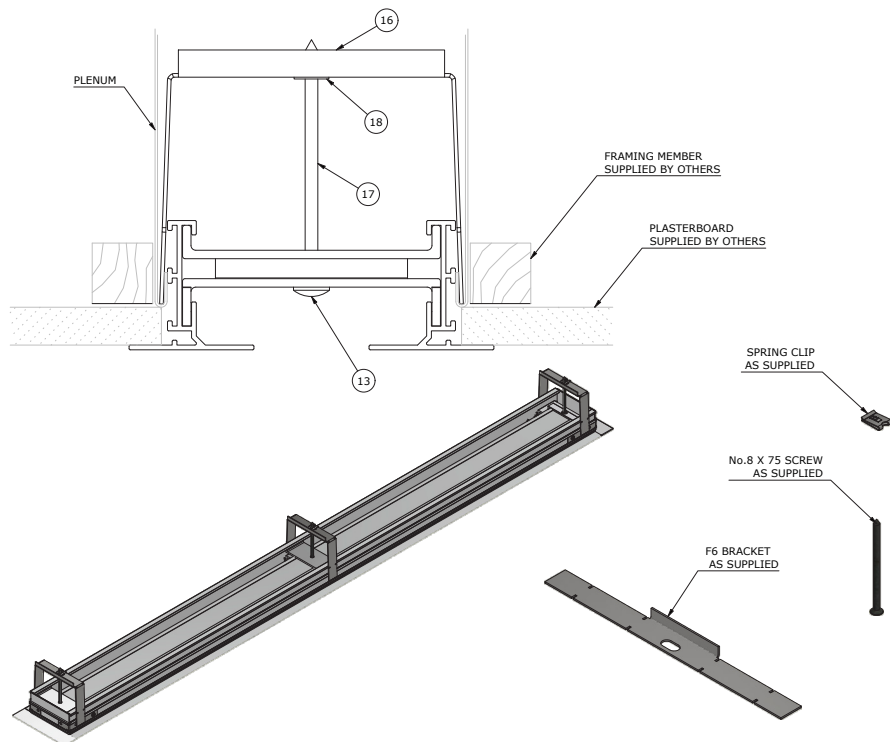- Be sure to insert Spline Support Clips-SS1 into the FlowBar ends to ensure a tight and aligned connection as shown.

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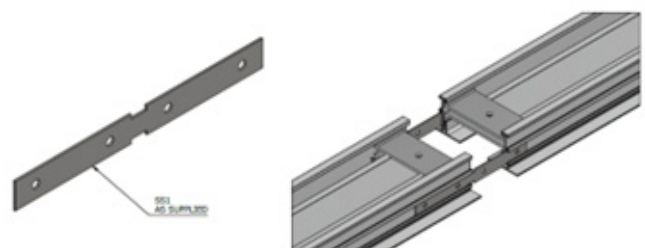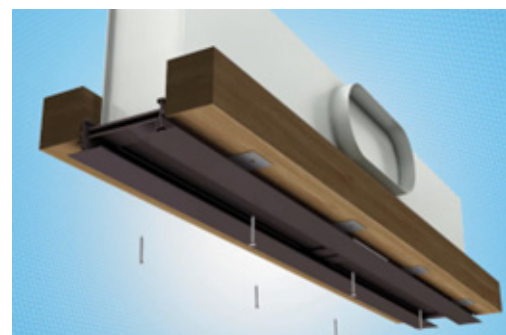
HT

Standard Plenum Installation with F6 U-bracket

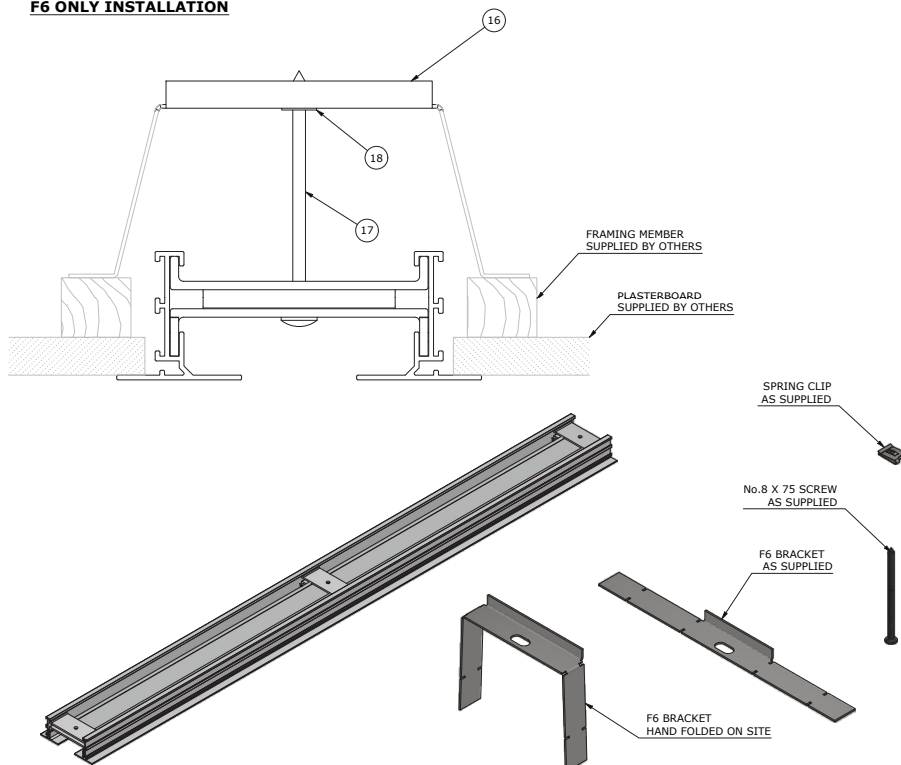HT ceiling mounted diffuser standard plenum installation using PBHL hemmed plenum box

F6 HEMMED PLENUM INSTALLATION

PLENUM

FRAMING MEMBER
SUPPLIED BY OTHERS

PLASTERBOARD
SUPPLIED BY OTHERS

SPRING CLIP
AS SUPPLIED

No.8 X 75 SCREW
AS SUPPLIED

F6 BRACKET
AS SUPPLIED

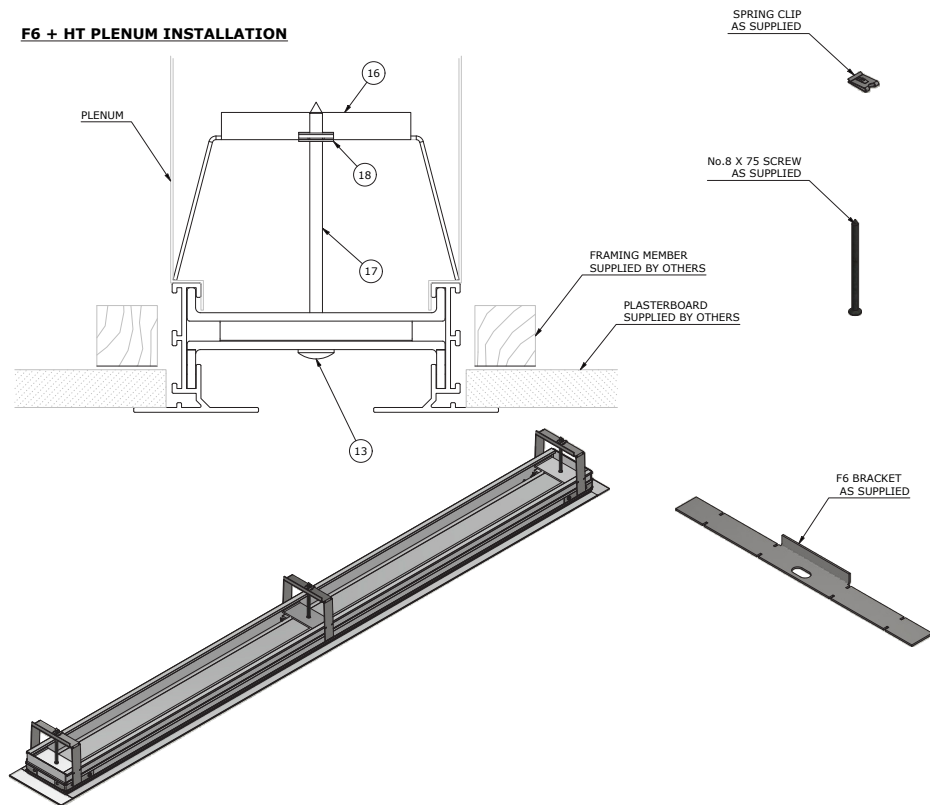## Diffuser only Installation with F6 U-bracket

For use in inactive or return air application where no plenum is fitted. F6 bracket needs to be formed into flat foot configuration at engineered notch.
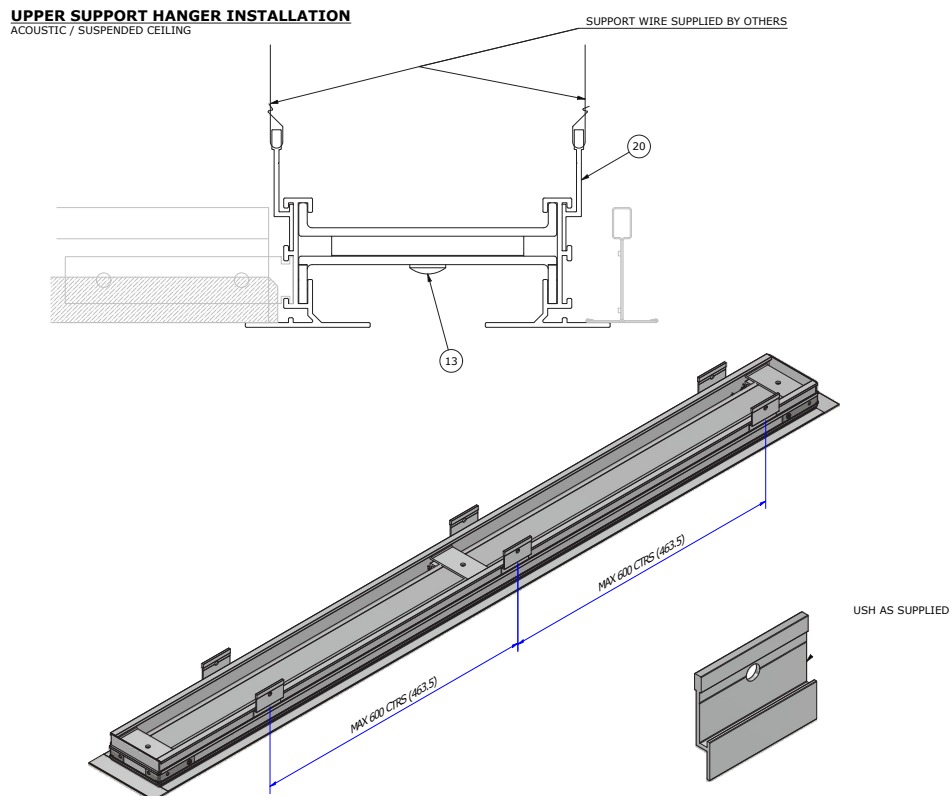
F6 ONLY INSTALLATION

FRAMING MEMBER
SUPPLIED BY OTHERS

PLASTERBOARD
SUPPLIED BY OTHERS

SPRING CLIP
AS SUPPLIED

No.8 X 75 SCREW
AS SUPPLIED

F6 BRACKET
AS SUPPLIED

F6 BRACKET
HAND FOLDED ON SITE

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FlowBar Type 66 IO&M

Alternative Plenum Installation with H3 hard ceiling clip & F6 U-bracket

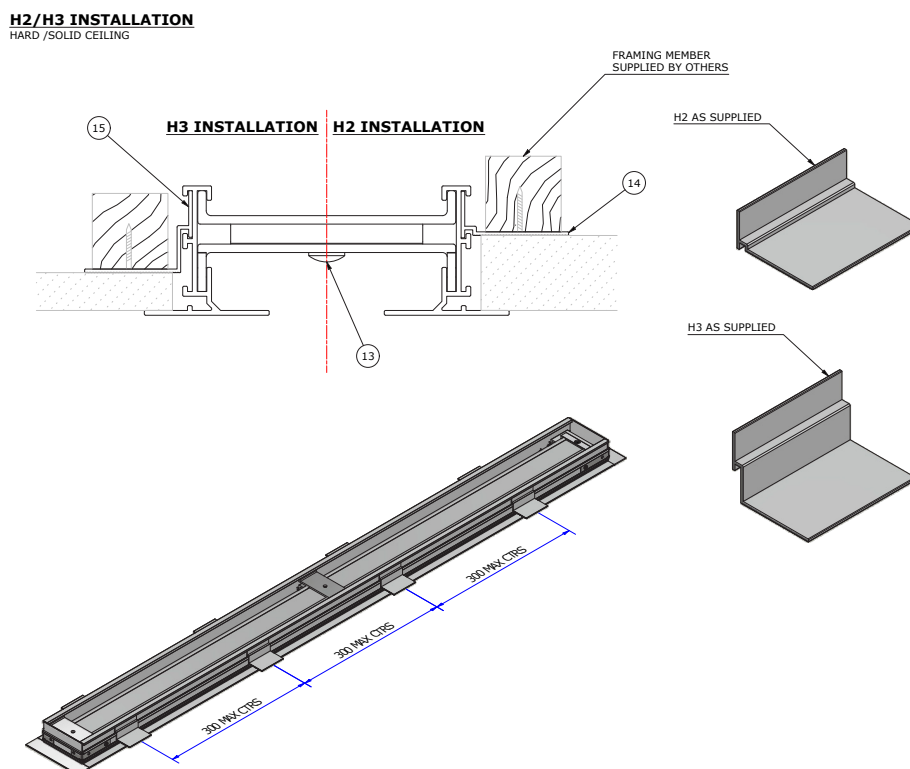Alternative plenum installation using PLS connecting edge plenum

F6 + HT PLENUM INSTALLATION

PLENUM

SPRING CLIP
AS SUPPLIED

No.8 X 75 SCREW
AS SUPPLIED

FRAMING MEMBER
SUPPLIED BY OTHERS

PLASTERBOARD
SUPPLIED BY OTHERS

F6 BRACKET
AS SUPPLIED

(16)
(18)
(17)
(13)

Acoustic/Suspended Ceiling installation with USH hanger

UPPER SUPPORT HANGER INSTALLATION
ACOUSTIC / SUSPENDED CEILING

SUPPORT WIRE SUPPLIED BY OTHERS

(20)
(13)

MAX 600 CTRS (463.5)
MAX 600 CTRS (463.5)

USH AS SUPPLIED

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Installation with H2/H3 hard ceiling clip

H3 for use with a 12.5mm plasterboard ceiling. H2 for use with a 25mm plasterboard ceiling

H2/H3 INSTALLATION
HARD /SOLID CEILING

FRAMING MEMBER
SUPPLIED BY OTHERS

H3 INSTALLATION | **H2 INSTALLATION**

H2 AS SUPPLIED

H3 AS SUPPLIED

300 MAX CTRS

JT

Standard Plenum Installation with F6 U-bracket

JT wall mounted diffuser standard plenum installation using PBSW hemmed plenum box

PLASTERBOARD
SUPPLIED BY OTHERS

FRAMING MEMBER
SUPPLIED BY OTHERS

PENUM

WATERLOO
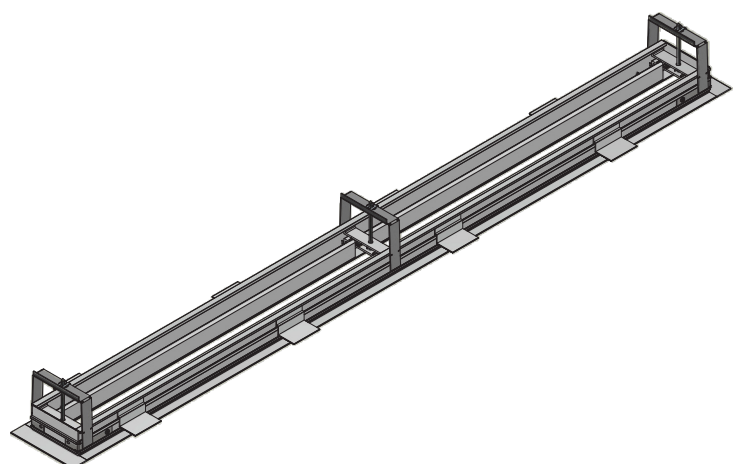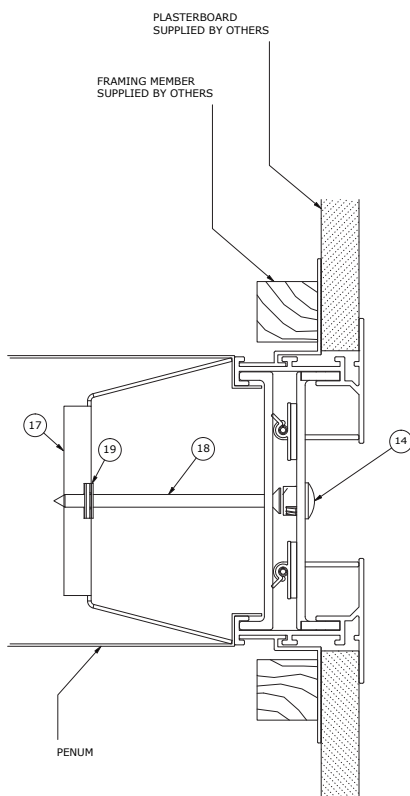by Swegon
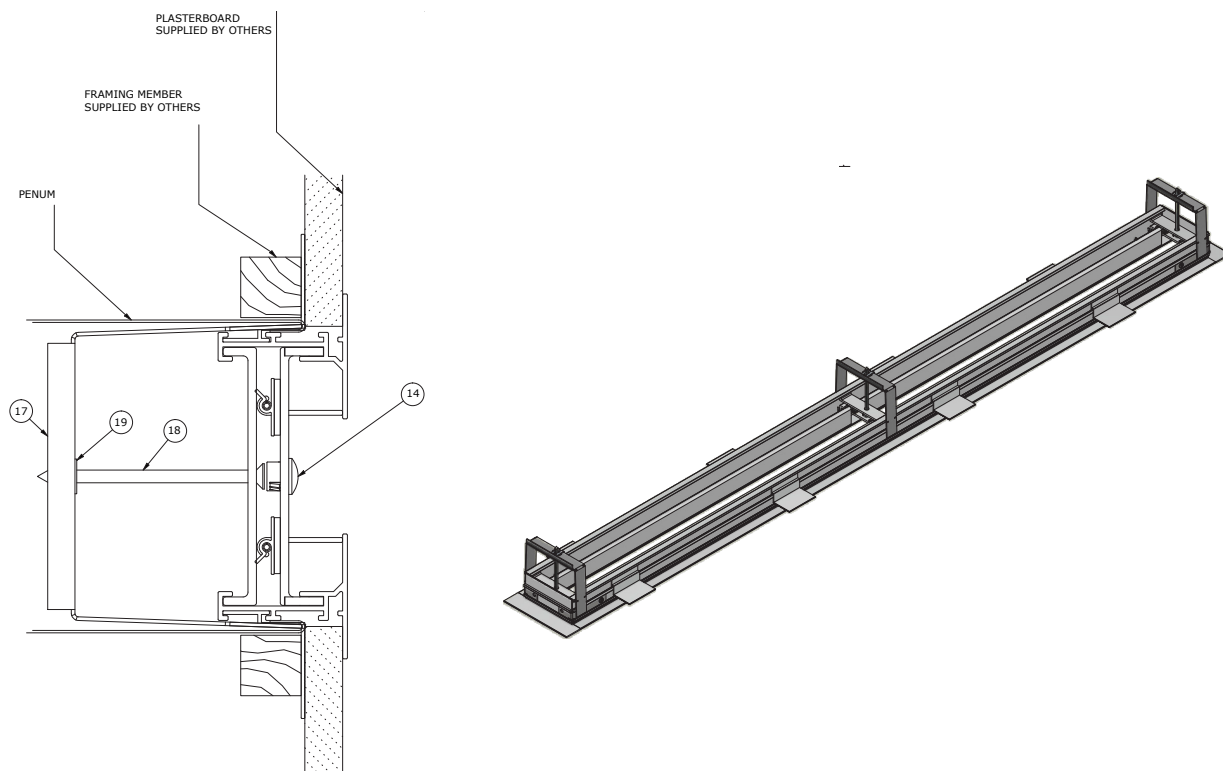
FlowBar Type 66 IO&M

Diffuser only Installtion with F6 U-bracket

For use in inactive or return air application where no plenum is fitted. F6 bracket needs to be formed into flat foot configuration at engineered notch.
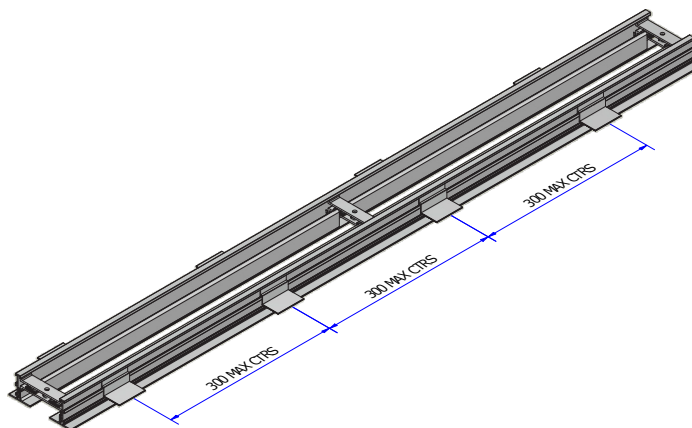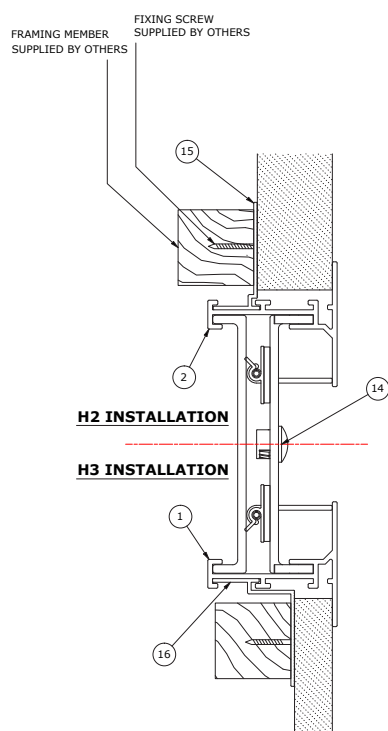
PLASTERBOARD
SUPPLIED BY OTHERS

FRAMING MEMBER
SUPPLIED BY OTHERS

(17) (19) (18) (14)
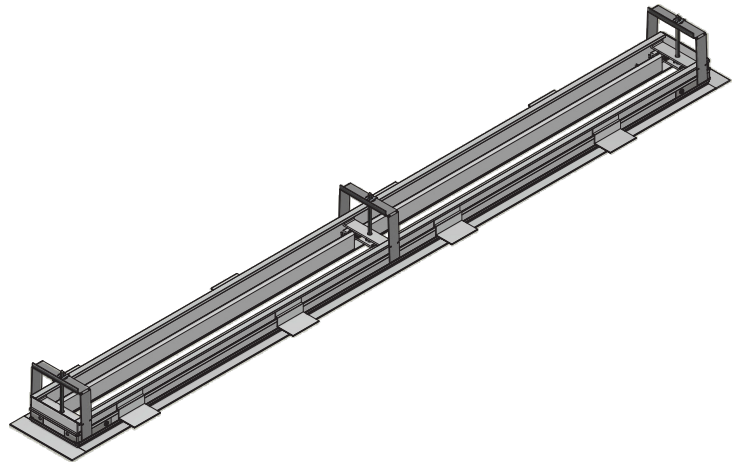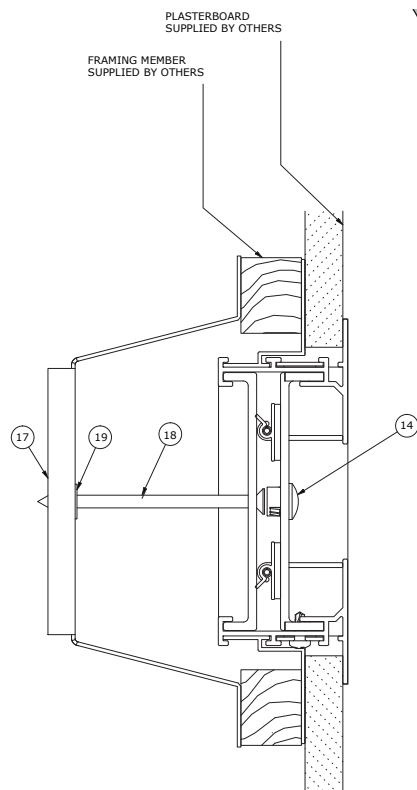
Alternative Plenum Installation using F6 U-bracket

Alternative plenum installation using PLS connecting edge plenum.

PLASTERBOARD
SUPPLIED BY OTHERS

FRAMING MEMBER
SUPPLIED BY OTHERS

(17) (19) (18) (14)
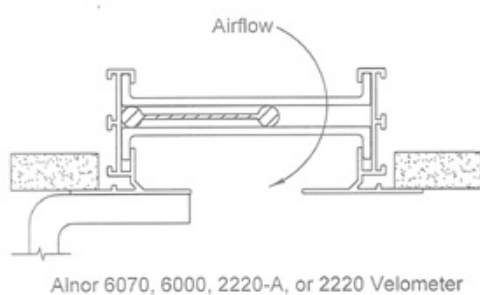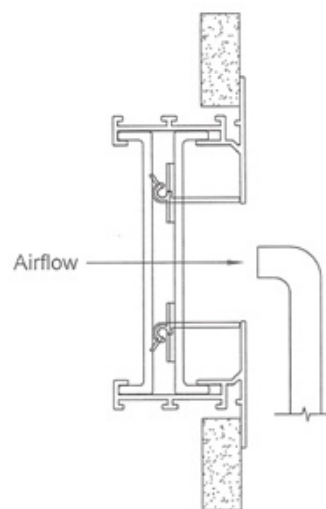
PENUM

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Installation using H2/H3 hard ceiling clip

H3 for use with a 12.5mm plasterboard ceiling. H2 for use with a 25mm plasterboard ceiling

Commissioning

Alnor 6070, 6000, 2220-A, or 2220 Velometer

HT FlowBar Diffuser Air Flow Factor	
Slot Opening	A x/a
FL10	0.019
FL15	0.023
FL20	0.028
FL25	0.038
FL30	0.041

Alnor 6070, 6000, 2220-A, or 2220 Velometer

JT FlowBar Diffuser Air Flow Factor	
Slot Opening	A x/a
FL10	0.025
FL15	0.038
FL20	0.051
FL25	0.064
FL30	0.076

- Ensure pattern controllers are set in the correct position
- Place velometer in the airflow path as shown in detail
- Apply the free area figures per metre presented in the table to the active plenum length on site (eg. 1.8m active JT FL10 0.025 x 1.8 = 0.045m²)
- Calculate flow rate by using the equation below:

Volume (m³/s) = Face velocity (m/s) X Area (m²)