

MetalWorks Baffles Installation Guide

Armstrong[®]
CEILING SOLUTIONS



METALWORKS BAFFLES

MetalWorks Baffles Installation Guide

Product Description

The Armstrong MetalWorks Baffles ceiling system consists of a range of extruded aluminium Baffle profiles which are supported by the U-Profile Suspension System as per details below.

General Installation Conditions

Armstrong MetalWorks ceilings are **INTERIOR FINISHES ONLY** and conditions during the installation should reflect this. Armstrong recommends during installation that relative humidity should not exceed 99%, within a temperature range of 0° to 49° Celsius and with the absence of any “standing water”. Conditions following completion should be maintained as such. Because of the risk of soiling, the installation of ceiling Baffles should only take place after the completion of any work generating large amounts of dust. The wearing of clean gloves is recommended for installation work. The ceiling installer is responsible for the satisfactory installation of the ceiling and adherence to industry best practice and in accordance with AS/NZS2785:2020

Baffles should only be stored in a dust-free and dry area. It is important to ensure that the Baffles are not subjected to any mechanical influences, such as damage caused by the underlying surface. Baffles delivered on pallets should be stored in their original packaging until they are installed. Where this is not possible, care should be taken to ensure that cartons are stored with the designated side facing upwards. The installation company is responsible for the careful storage of Baffles.

The integrity of the entire suspended ceiling depends on the hangers – commonly 5mm gal rod is used, with some contractors using 2.5mm wire or M6 Threaded Rod. Each of these hanger types meet Australian / New Zealand standard 2785-2020 and in conjunction with suitable Suspension Clips, support the U-Profile Channels. Bracing is to be applied where required to ensure the U-Profile™ Suspension System remains square.

***Note: Specially designed MetalWorks Ceilings for EXTERIOR applications are available upon request. Contact your Armstrong Ceiling Solutions Representative for details and conditions.**

1. Before You Start

- All material delivered to site should be checked for damage, unopened and original packages.
- At this stage if you are unsure of the suitability of material for this project, ask questions, as it is very expensive to remove materials that have been installed.
- All materials to be kept dry and protected from the elements.

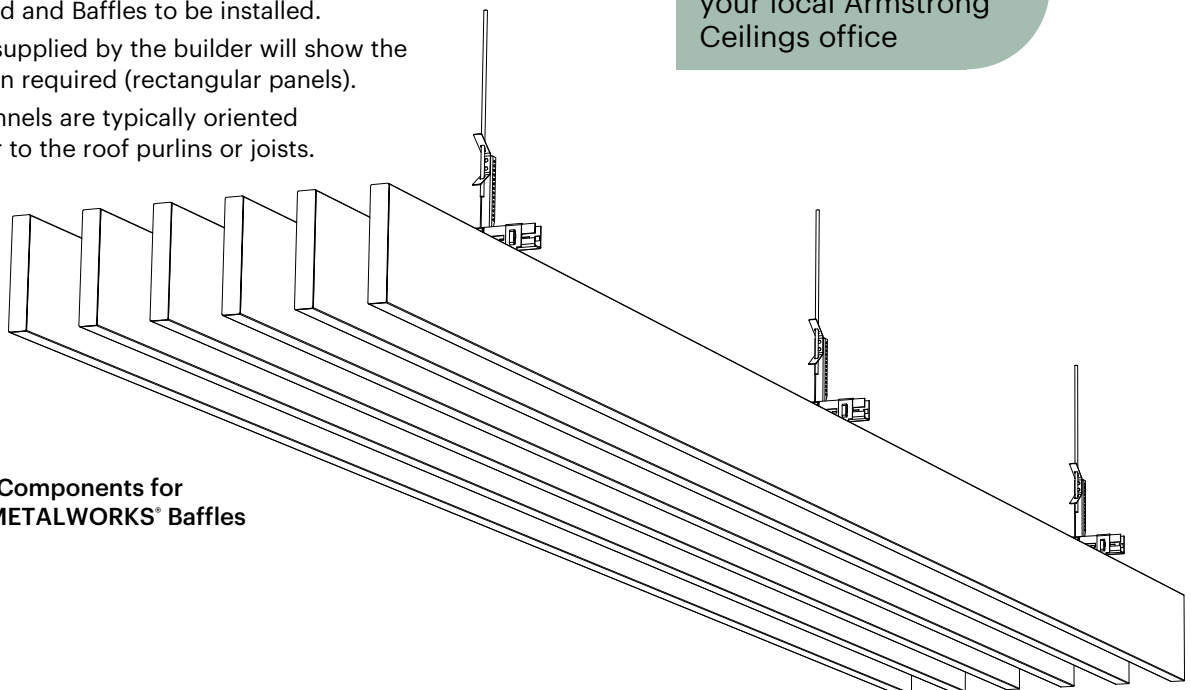
2. Plenum Space

- The installation of Armstrong MetalWorks Baffles panels requires no more space in the plenum than that which is required to hang the suspension system. Baffles never need to travel into the plenum space during installation or removal.
- The total height of the ceiling assembly can be determined from the Section D drawing on page 4. Additional space is required for the attachment of Suspension Clip and 5mm Rod.

3. Determine Ceiling Orientation

- It is important at this stage to determine the direction the ceiling grid and Baffles to be installed.
- The drawing supplied by the builder will show the panel direction required (rectangular panels).
- U-Profile Channels are typically oriented perpendicular to the roof purlins or joists.

For Seismic Design support please contact your local Armstrong Ceilings office



Suspension Components for
Armstrong METALWORKS® Baffles

MetalWorks Baffles Installation Guide

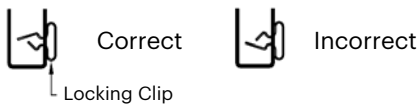
4. Installation Of Hangers and U-Profile

- The 5mm Gal rod shall to be cut to pre-determined lengths, and a hook bent to 30° on one end (must be a sharp bend, so the suspension bracket will fit into the bend without the rod straightening).

Where specified, the U-Profile can be suspended on 6mm galvanised threaded rod. See Fig. 2 for details (Suspension Clip for Threaded Rod is Item UNITRCB).

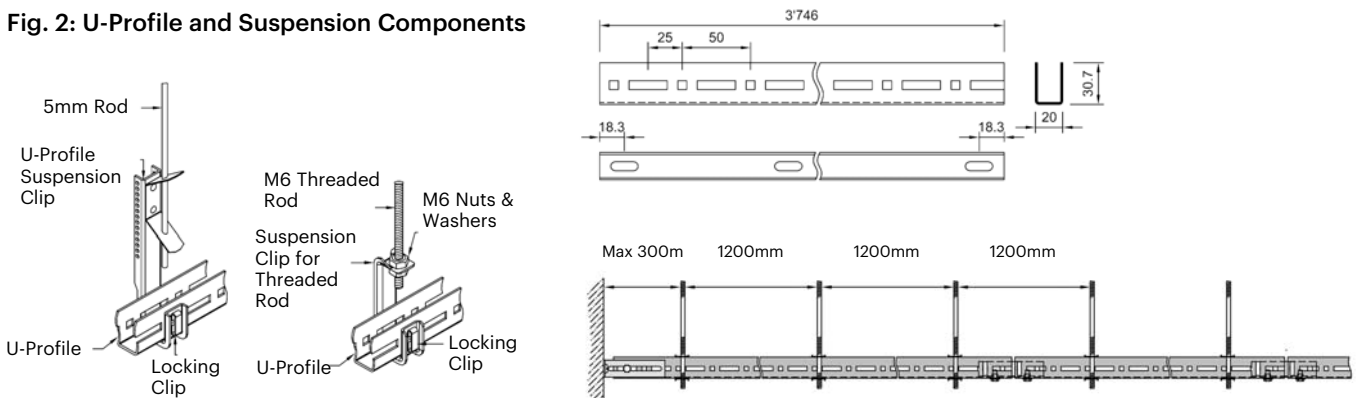
- Fit the Suspension Clip to the rod at this stage and fasten with Locking Clip (item UNI200).
- The Locking Clip is correctly fitted with the longer tongue face up (see Fig 1). The Locking clip can be removed by pressing down on the upper tongue.

Fig. 1: Locking Clip Installation



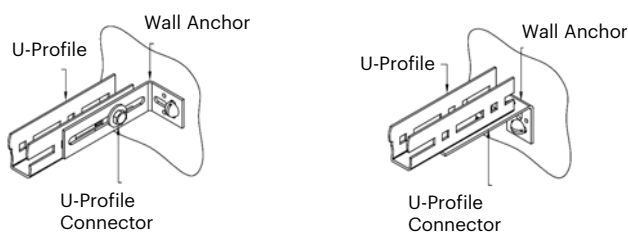
- Ensure all suspension rods are vertical.
- Install U-Profile Channels at 1200mm (maximum) centres with Suspension Hangers (5mm Rod and Clip) at 1200mm (maximum) centres along the length of each U-Profile (Item UNI111B). Ensure Locking Clips are installed to secure the Suspension Clip to the U-Profile. See Fig. 2 for details and specific components: 5mm Rod, Suspension Clip (item UNI203B) and Locking Clip (item UNI200).

Fig. 2: U-Profile and Suspension Components



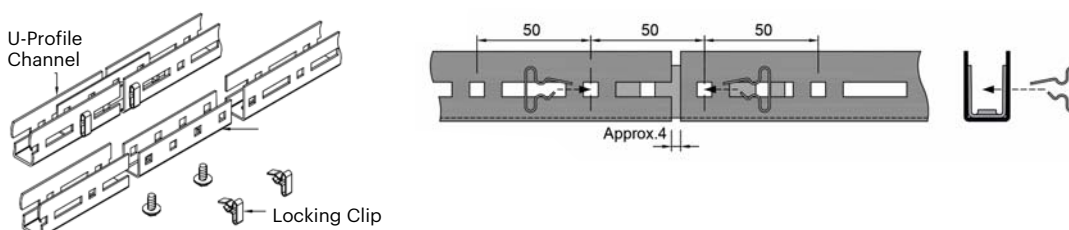
- The U-Profile must have suspension points at 1200mm centres, with the 1st suspension point being 300mm from wall.
- U-Profiles are to be secured to the perimeter with the Wall Anchor (Item UNI202) See Fig. 3 for details.

Fig 3: U-Profile Detail at Perimeter



- U-Profiles are to be joined end to end with a U-Profile Connector (Item UNI103). See Fig. 4.
- To ensure the U-Profiles are kept precisely on module, tolerances in the U-Profile can be absorbed in the joint with the connector.

Fig 4: U-Profile and Connector

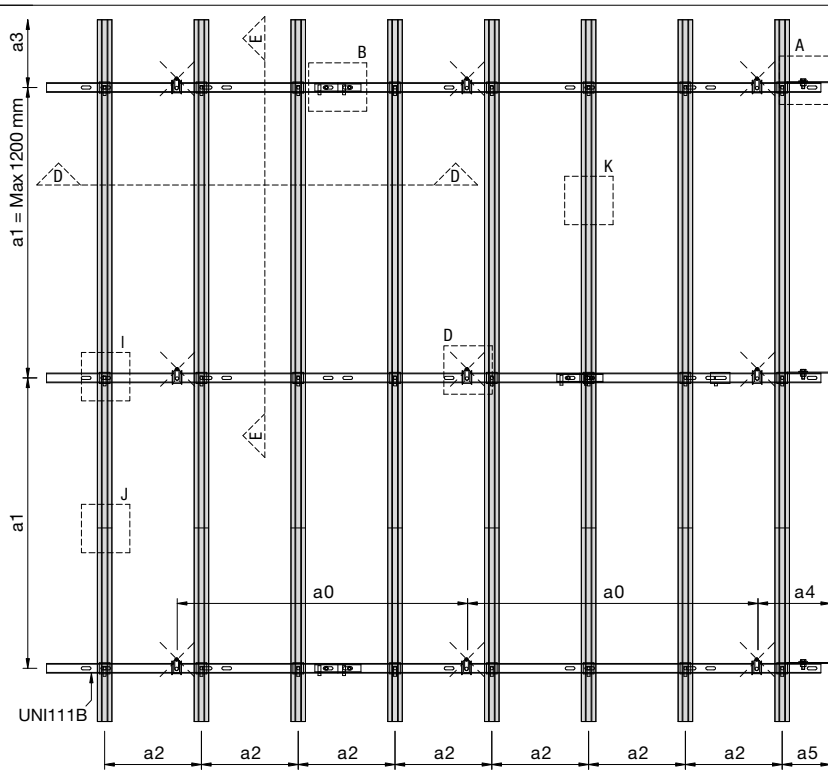


MetalWorks Baffles Installation Guide

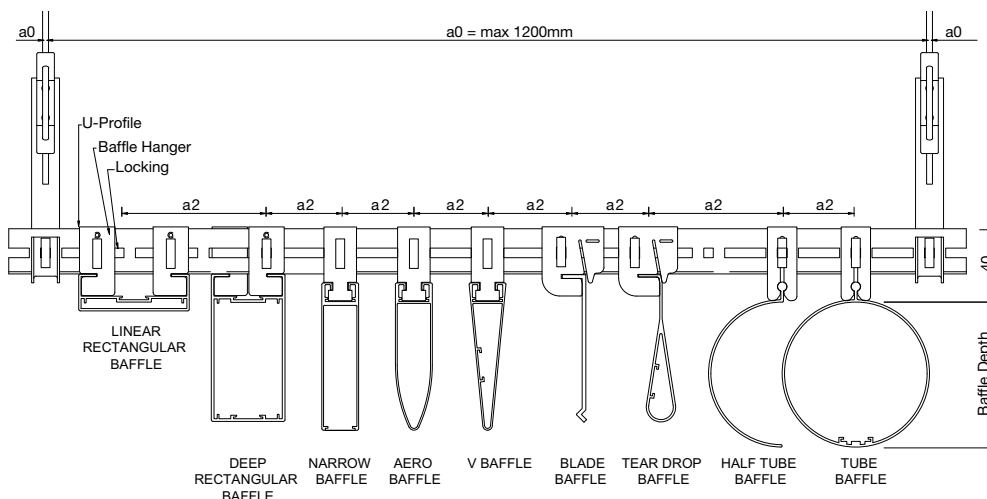
5. U-Profile and Baffle Layout

- U-Profiles should be installed at maximum 1200mm centres with suspension points at 1200mm centres, with the first suspension point being no greater than 300mm from the end of the U-Profile.
- The U-Profiles are to be installed parallel, in a manner that the punchings along the length, align from one U-Profile to the next. Note: the U-Profiles are directional and punched on both sides at 50mm OC, and 25mm offset. See Fig. 2 for details.

TYPICAL GRID LAYOUT



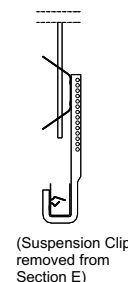
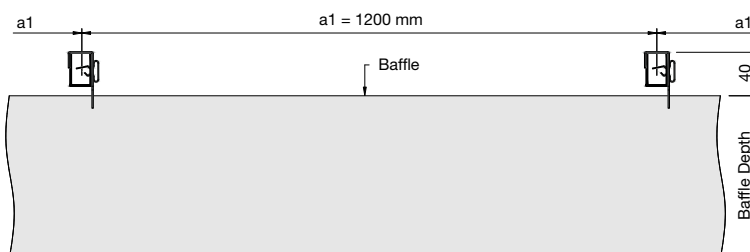
SECTION D



Note: Baffle Hanger configurations can differ between systems, centres and Baffles profile and sizes.

Please refer to system drawings or your local Armstrong Ceilings Representative.

SECTION E



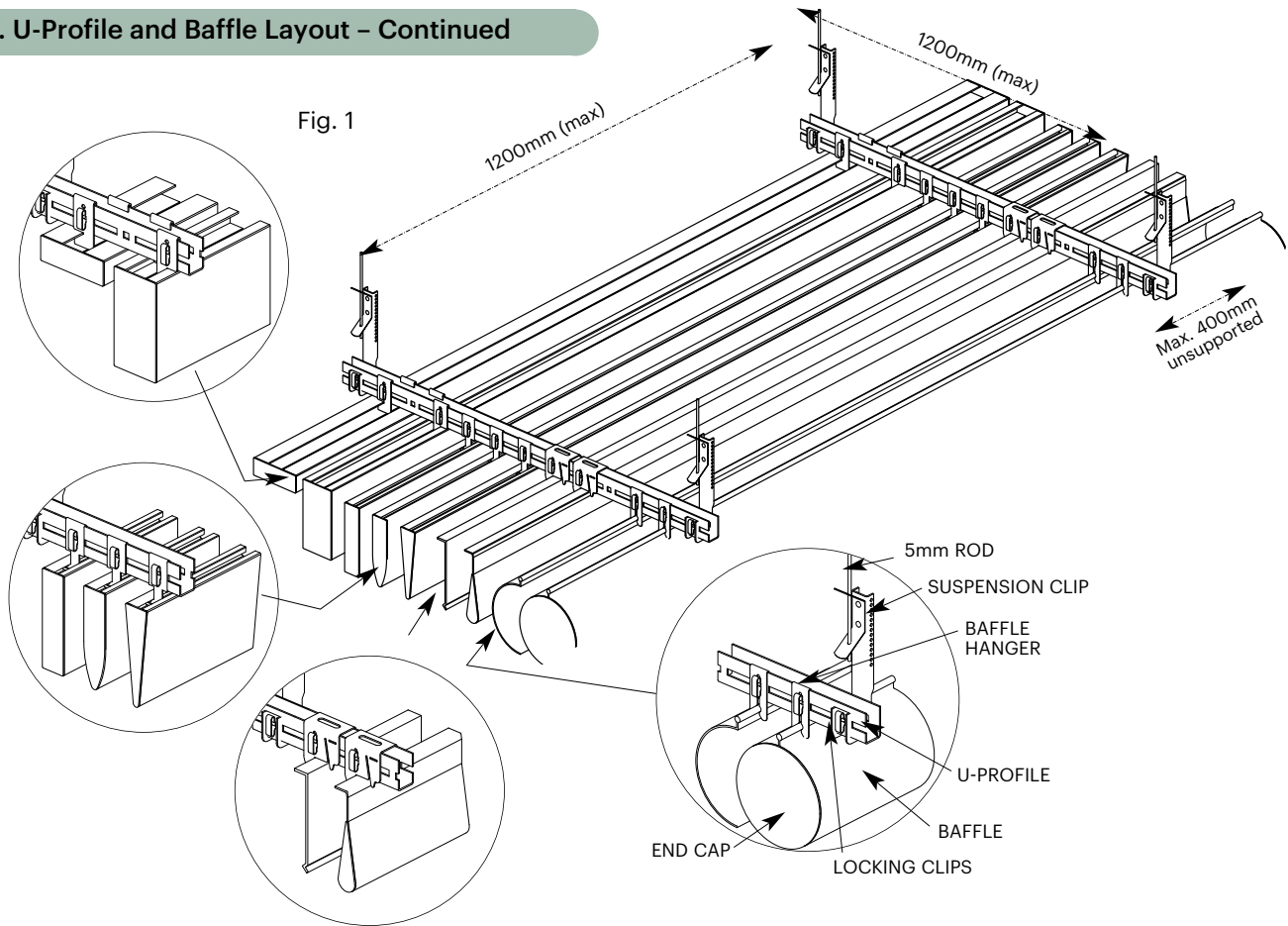
Suspension Components

Item Number	Description
UNI111B	U-Profile (3750mm)
UNI103B	U-Profile Connector
BHBLH	Linear & Deep Rectangular Baffle Hanger (Black) Left Hand
BHBRH	Linear & Deep Rectangular Baffle Hanger (Black) Right Hand
BHC	Narrow, Aero & V Baffle Hanger (Black)
UNI101	Blade & Tear Drop Baffle Hanger (Black)
ARH	Tube Baffle Hanger (Black)
BPM300371	Baffle Connector
UNI203B	Suspension Clip for 5mm Rod
UNITRCB	Suspension Clip for M6 Threaded Rod
ROD 5mm	5mm Suspension Rod
UNI200	Locking Clip
UNI202	U-Profile Wall Anchor Bracket

- a0 Distance between suspension points = Maximum 1200mm
- a1 Distance between U-Profile Channels = Maximum 1200mm
- a2 Distance between Baffles = As specified
- a3 Maximum Baffle Cantilever distance from U-Profile = Maximum 400mm
- a4 Distance from wall to first Suspension Point = Maximum 300mm
- a5 Minimum distance from wall to first Baffle = 20mm
- L Baffle Length = Typically 3,600mm

MetalWorks Baffles Installation Guide

5. U-Profile and Baffle Layout – Continued



6. Installation of the MetalWorks Baffle Profiles

Unless specifically ordered, Baffles will be factory produced to a nominal size, typically 3,600mm. Baffle extrusions may need to be trimmed to exact dimension, which can be done simply, on site, using an aluminium drop saw.

- Locate Baffle Hangers (either item UNIMBH or BH10050B) in slot of Baffle section at 1200mm centres. Narrow Baffle Hanger (UNIMBH) are inserted into the slot, then rotated 90° and fixed into position by tightening the grub screw.
- Baffle is lifted into position and hangers engage over lip of U-Profile. Each Hanger is then secured into position by inserting the Locking Clip. Note: Baffles are spaced according to specification, but can be located along the U-Profile at 25mm increments (see below).

7. Connecting Baffles and Installing End Caps

Baffles are connected at ends with Baffle Joiners (item UNI112S), which are inserted into the top and bottom slots of the Baffle section and fastened with grub screws. It is recommended that the bottom Joiner is located 1st and fastened on one side only. The top Joiner is then fitted and secured with grub screws, also on one side. Then the two Baffle sections are joined and the top Joiner is screw fastened on the 2nd Baffle profile (see Fig. 2).

Where required, End Caps are located on exposed ends of Baffle sections. End Caps are simply located by pushing into the Baffle section, however due to manufacturing tolerances there may be a requirement to apply construction adhesive to the End Cap to avoid it from falling out (see Fig. 2).

8. Cutting Options

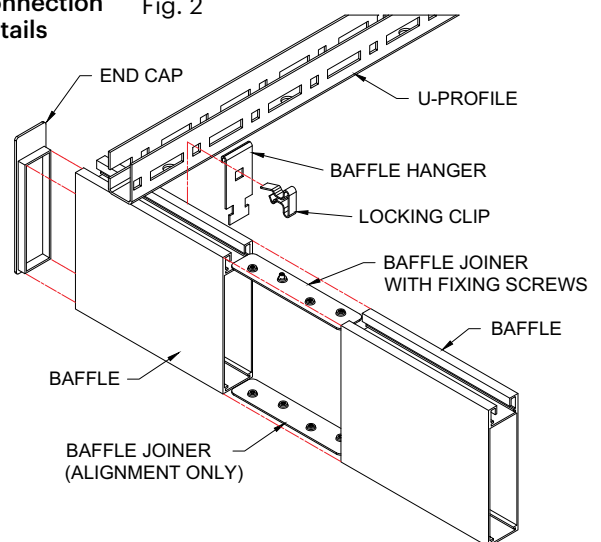
Baffle sections are to be cut to specified length on site, using an aluminium drop saw.

9. Baffle Removal

All Baffles are removable without moving up into the plenum.

Procedure: Baffles are removed by reversing the Installation procedure illustrated on previous page.

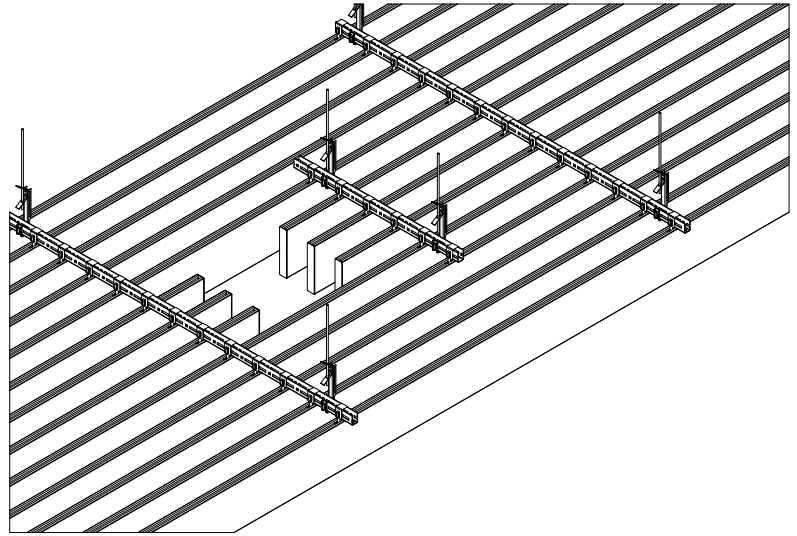
Connection Details Fig. 2



MetalWorks Baffles Installation Guide

11. Creating Openings / Voids For Integration of Services

- Openings can be simply created in the Baffle Ceiling as per the drawing below. Baffle sections are to be cut to specified length on site, using an aluminium drop saw.
- Additional U-Profiles and Suspension Hangers are to be applied where Baffles are cut (refer drawing for detail). Baffle sections should not cantilever more than 400mm from supporting U-Profile.
- All Mechanical services to be independently supported.



12. Backloading

Unless approved, Armstrong metal ceilings are designed to support only their own weight plus that of light weight insulation. All mechanical services must be independently supported.

13. Maintenance

Ceiling Baffles may be cleaned at any time. However, any maintenance work on suspended ceilings should only be carried out after the technical functions of the ceiling installation have been carefully checked. In cases of doubt, the relevant Armstrong sales office should be contacted.

In the case of damage to individual Baffles, these can be exchanged within the systems. In such instances, especially after extended periods of use, colour variations may occur when individual tiles are replaced.

13.1 Armstrong – paint coatings

Armstrong ceiling Baffles are finished with a polyester powdercoat.

13.2 Cleaning of Armstrong METALWORKS metal ceilings.

The frequency of cleaning will depend upon the function and usage of each area and the efficiency of the air conditioning/ heating system. This period can only be determined after handover and occupancy. Although the ceiling materials are provided with durable paint finish, abrasive or strong chemical detergent should not be used. A mild detergent diluted in warm water applied with a soft cloth, rinsed and finally wiped off with a chamois leather will maintain the ceiling in good condition. Oily or stubborn stains if not removed by washing can be wiped off with white spirit but care is necessary to avoid affecting the gloss level of the paint finishes.

Contact us

Armstrong Ceiling Solutions (Australia) Pty. Ltd.

NSW / ACT
(02) 9748 1588

VIC / TAS
(03) 8706 4000

QLD / NT
(07) 3809 5565

Armstrong[®]
CEILING SOLUTIONS