

MetalWorks™ WH1000 & WH1100 Custom Hook-on Wall Panels

Assembly and Installation Instructions



1. GENERAL

1.1 Product Description

MetalWorks™ WH1000 and WH1100 Custom Hook-on Wall Panel System is a progressively accessible, custom metal cladding available in a range of sizes. Depending on the panel orientation (reclined or upright), flat panels are designed to install on the C-Wall profiles (WH1000) or U-Wall profiles (WH1100). All panels can be removed and re-installed with minimal access to the vertical wall structure. Two vertical sides (typically the short sides for WH1000 and long side for WH1100) support the installed panels. Each corner will have a hook detail that allows the panel to engage on the suspension bracket. The adjacent sides have horizontal returns; the panels are self-supporting without sag.

Gaskets

A foam “gasket” is applied on the WH1000/WH1100 panel. The gasket (standard width 5mm) allows panels to be installed and removed easily, provides a tolerance factor and creates a uniform reveal joint. Gaskets will be indicated on the shop drawings.

Perforations

Panels may be perforated or non-perforated. A factory installed acoustical mat is typically provided for sound absorption. Add the optional field installed acoustical infill for increased sound absorption if specified.

1.2 Storage and Handling

The ceiling panels must be stored in a dry interior location and must remain in cartons prior to installation to avoid damage. The cartons must be stored in accordance with the instructions on the carton. Proper care should be taken when handling to avoid damage or soiling.

1.3 Site Conditions

Building areas to receive ceilings must be free of construction dust and debris. Panels should only be installed in closed and acclimatized buildings. The systems cannot be used in exterior applications where standing water is present or where moisture will come in direct contact with the ceiling.

2. SUSPENSION SYSTEM

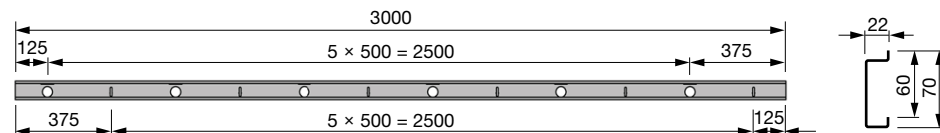
2.1 General

The suspension system must be Armstrong C-Wall profile (IND315620) for WH1000 and Armstrong U-Wall profile (IND315623) for WH1100. The suspension system must be properly installed and leveled.

NOTE: Standard system measurements shown throughout this installation guide have been converted from millimeters (mm) and rounded to the nearest 1/32" for reference.

INSTALLATION PARAMETERS SYSTEM WH1000

These installation instructions are to be regarded as an application guideline. All details and technical information in these instructions or other publications which refer to Armstrong products are based on test results which were achieved under typical conditions.



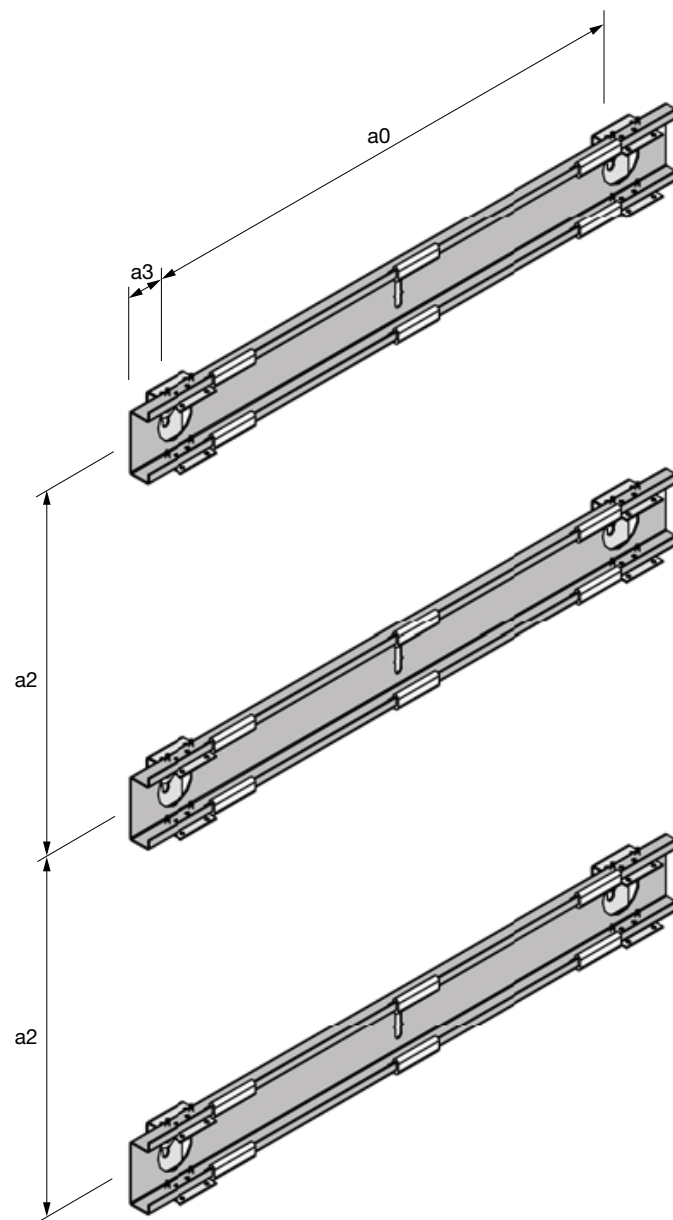
C-wall profile

The C-wall profile has two different perforations, which are arranged alternately.

The round hole is intended for installation with wall anchors and the elongated hole is for optional installation without anchor.

Installation parameters

- qF Weight of Armstrong® wall cladding systems [kN/m²]
qF = 0.100 kN/m² [2.08" lbs/SF]
- a0 Distance between the fastening points on the wall [mm]
a0 max = 500 mm [19-22/32"]
- a2 Distance between the C-wall profiles [mm]
a2 max = 1250 mm [49-6/32"]
- a3 Distance between the beginning of the C-wall profile and the first fixing point [mm]
a3 max = 125 mm [4-29/32"]
- A Panel length
A max = 3000 mm [118-3/32"]
- B Panel width
B max = 1000 mm [39-13/32"]



Detail of fixing point with wall anchor

Armstrong Ceilings Solutions reserves the right to make technical modifications and product improvements any time without any prior notice.

For Information on latest technical details always refer to the website
armstrongceilings.com/metalworks

Distances

Panel Type A

Upright, with 2 suspension points on each long side of the panel

Length A: min. 600 / max. 1300 mm [min. 23-19/32" / max. 51-6/32"]

Width B: min. 275 / max. 1000 mm [min. 10-26/32" / max. 39-13/32"]

Panel Type B

Upright, with 3 suspension points on each long side of the panels

Length A: min. 1301 / max. 2500 mm [min. 51-6/32" / max. 98-13/32"]

Width B: min. 275 / max. 1000 mm [min. 10-26/32" / max. 39-13/32"]

Panel Type C

Upright, with 4 suspension points on each long side of the panel

Length A: min. 2501 / max. 3000 mm [min. 98-13/32" / max. 118-3/32"]

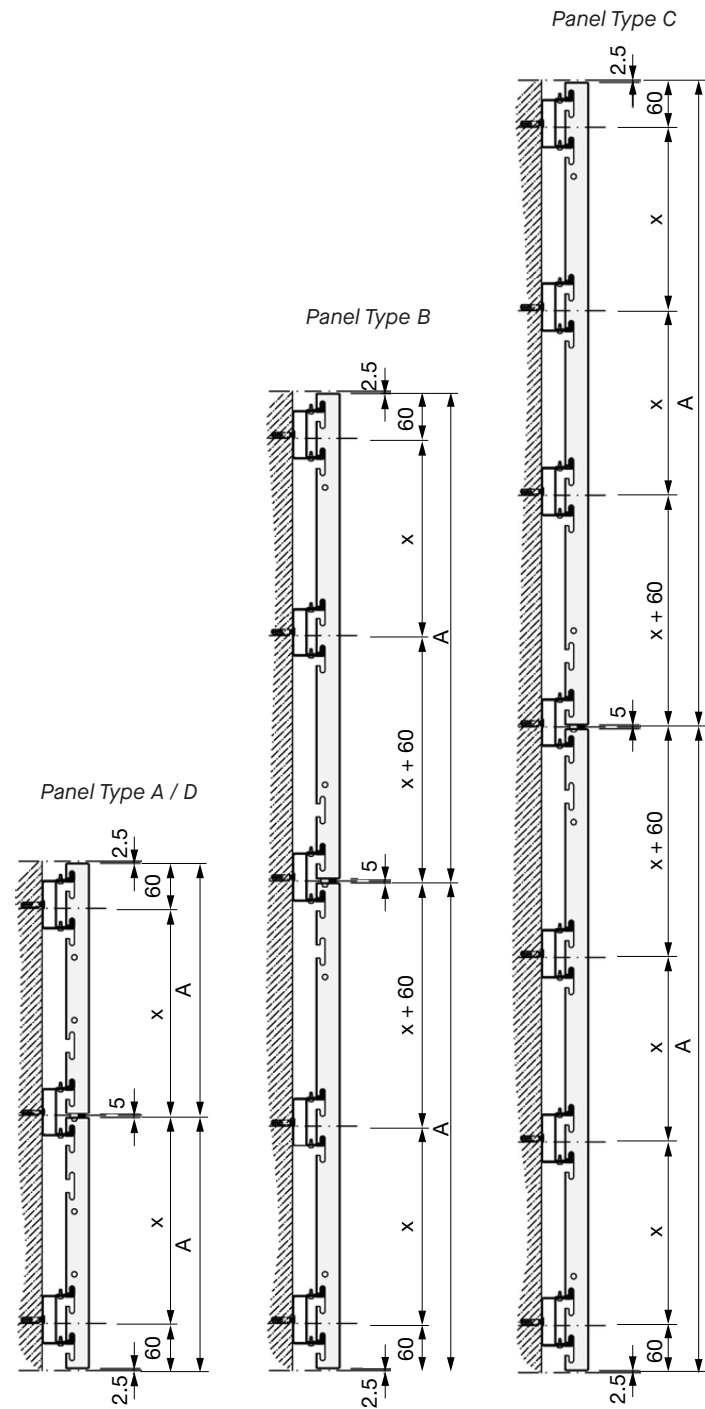
Width B: min. 275 / max. 1000 mm [min. 10-26/32" / max. 39-13/32"]

Panel Type D

Reclined, with 2 suspension points on each short side of the panel

Length A: min. 600 / max. 3000 mm [min. 23-19/32" / max. 118-3/32"]

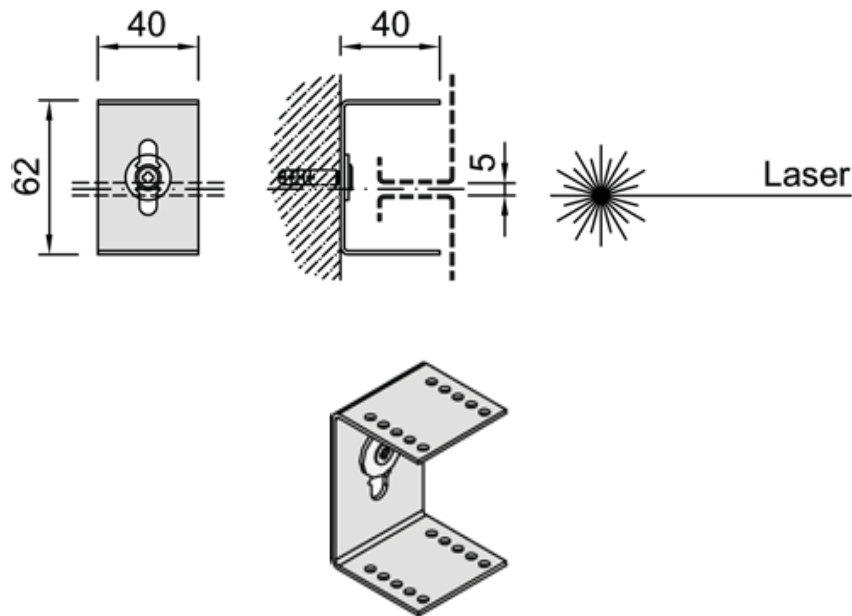
Width B: min. 275 / max. 1000 mm [min. 10-26/32" / max. 39-13/32"]



Wall anchor

The wall anchor is designed in such a way that the notch in the elongated hole comes to rest in the middle of the panel joint. With the aid of a construction laser, the wall anchor can therefore be exactly aligned. For this, the notch at the bottom is used in each case. Due to the symmetrical shape of the wall anchor, it can also be turned through 180°.

The attachment type should be selected according to the surface with design-type tested fastening technology. A washer must be used in all cases.

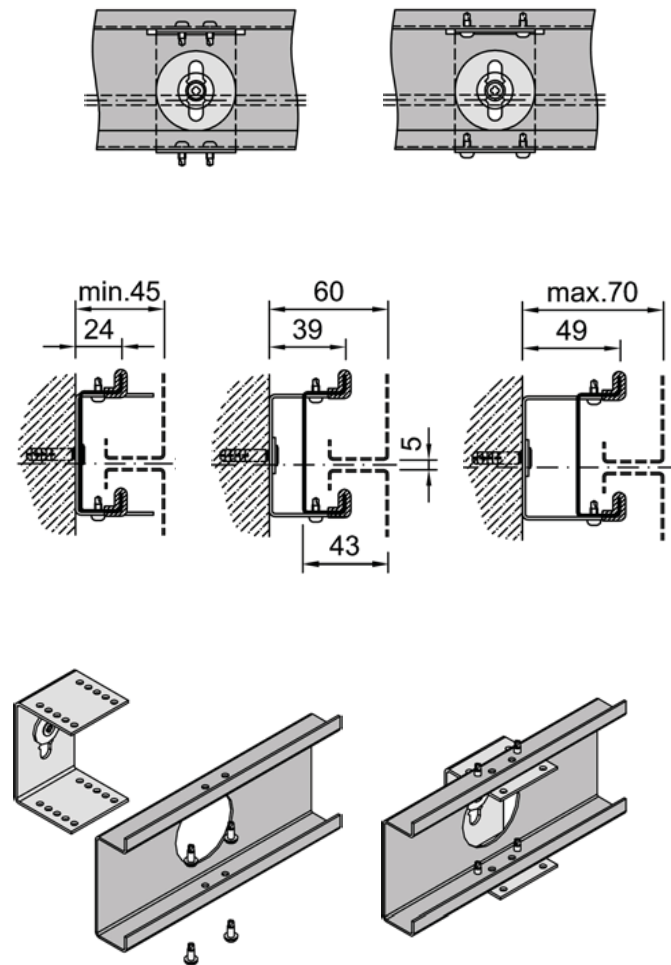


Installation C-wall profile

The C-wall profile is attached to the wall anchor with four self-drilling screws. It is not important whether they are screwed in from above or below.

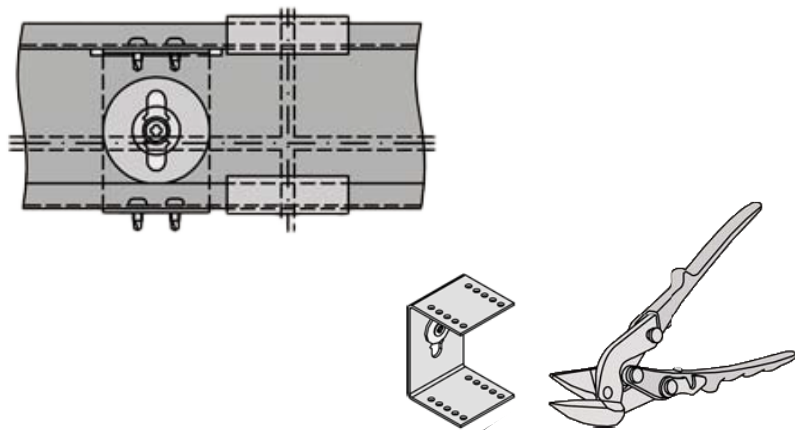
If the vertical position of the C-wall profile has to be corrected after installation, this is possible without disassembling. The fastener can be directly unscrewed through the round hole and the position of the profile realigned.

The offset distance of the C-wall profile is variable and the standard is 60 +10/-15 mm [2-12/32" +12/32" / -19/32"].



Supporting bracket for C- and U- wall profile

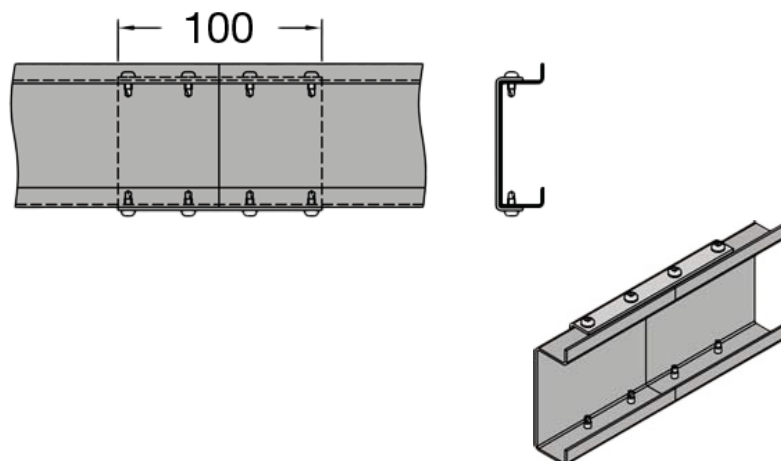
Depending on the offset distance, a collision is possible between the wall anchor and the support profile. In this case the wall anchor can be shortened accordingly.



Connector for C-wall profile

Alignment of the C-wall profiles is made easier by the use of the connector. The result is a straight continuous alignment which is firmly connected.

The connector is attached to the ends of the C-wall profile with eight self-drilling screws.

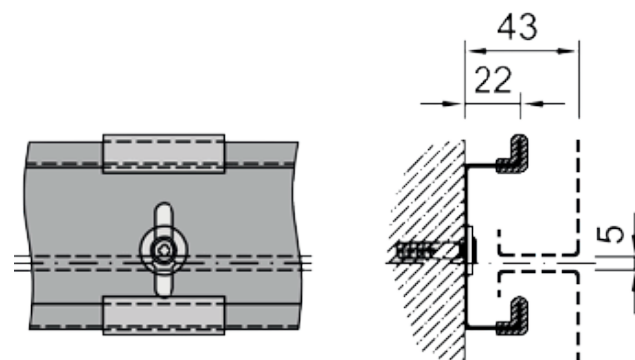


Optional installation

As an option, the C-wall profile can be attached directly to the surface, provided that it is even. It is designed so that the notch in the elongated hole comes to rest in the center of the horizontal panel joint. With the aid of a construction laser, the profile can therefore be directly aligned. Due to the elongated hole, the profile can also be aligned vertically.

The attachment type should be selected according to the surface with design-type tested fastening technology. A washer must be used in all cases.

See installation parameters as per B1.

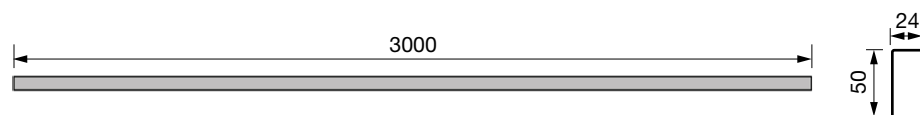


Item No.	Designation
(By Others)	plastic anchor UX-10
(By Others)	screw for plastic anchor UX-10
IND315620	C-wall profile
IND315629	connector for C-wall profile
IND315628	supporting bracket for C- and U- wall profile
IND315621	wall anchor for C-wall profile
(By Others)	self-drilling screw eco-drill 3.5 × 9.5 mm [4/32" × 12/32"]

INSTALLATION PARAMETERS SYSTEM WH1100

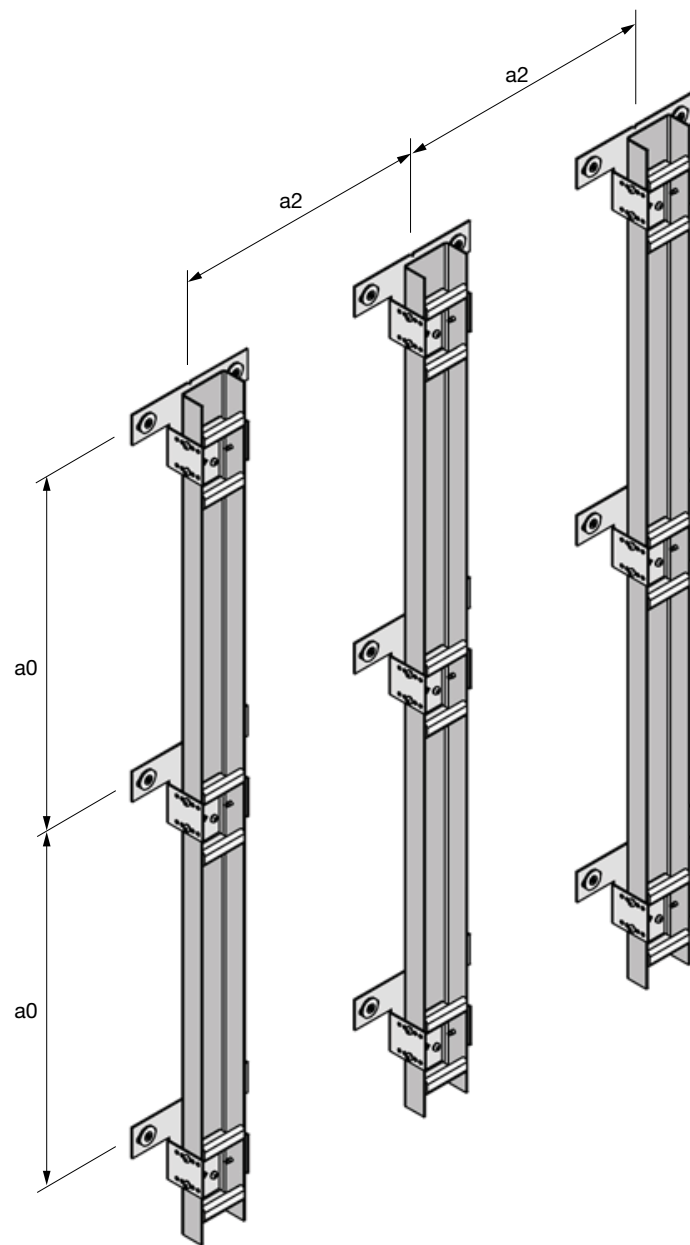
These installation instructions are to be regarded as an application guideline. All details and technical information in these instructions or other publications which refer to Armstrong products are based on test results which were achieved under typical conditions.

U-wall profile



Installation parameters

- qF Weight of Armstrong® wall cladding systems [kN/m²]
qF = 0.100 kN/m² [2.08" lbs/SF]
- a0 Distance between the fastening points on the wall [mm]
a0 max = 500 mm [19-22/32"]
- a2 Distance between the C-wall profiles [mm]
a2 max = 1250 mm [49-6/32"]
- a3 Distance between the beginning of the C-wall profile and the first fixing point [mm]
a3 max = 125 mm [4-29/32"]
- A Panel length
A max = 3000 mm [118-3/32"]
- B Panel width
B max = 1000 mm [39-13/32"]



Detail of fixing point with wall anchor

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Distances

Panel Type A

Upright, with 2 suspension points on each long side of the panel

Length A: min. 600 / max. 1300 mm [min. 23-19/32" / max. 51-6/32"]

Width B: min. 275 / max. 1000 mm [min. 10-26/32" / max. 39-13/32"]

Panel Type B

Upright, with 3 suspension points on each long side of the panels

Length A: min. 1301 / max. 2500 mm [min. 51-6/32" / max. 98-13/32"]

Width B: min. 275 / max. 1000 mm [min. 10-26/32" / max. 39-13/32"]

Panel Type C

Upright, with 4 suspension points on each long side of the panel

Length A: min. 2501 / max. 3000 mm [min. 98-13/32" / max. 118-3/32"]

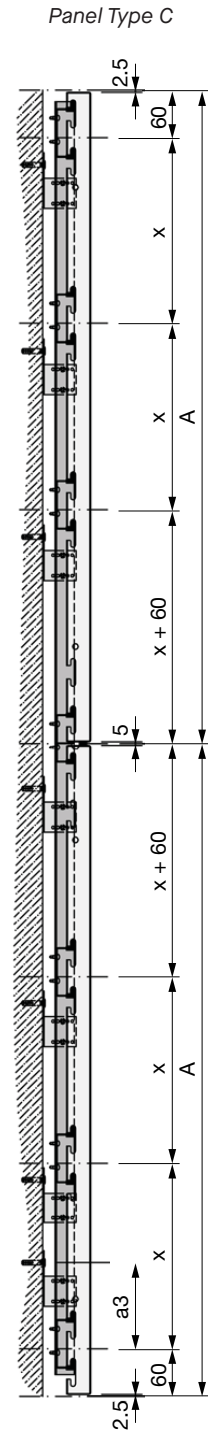
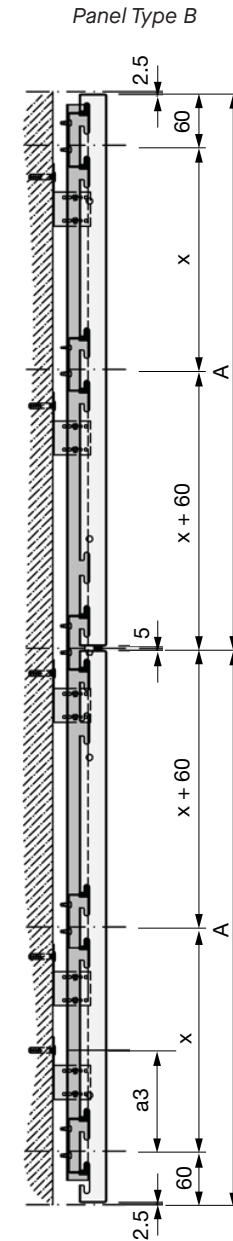
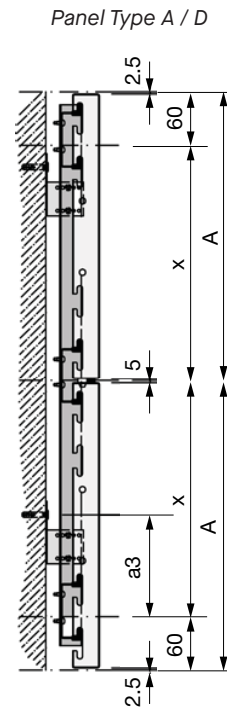
Width B: min. 275 / max. 1000 mm [min. 10-26/32" / max. 39-13/32"]

Panel Type D

Reclined, with 2 suspension points on each short side of the panel

Length A: min. 600 / max. 3000 mm [min. 23-19/32" / max. 118-3/32"]

Width B: min. 275 / max. 1000 mm [min. 10-26/32" / max. 39-13/32"]



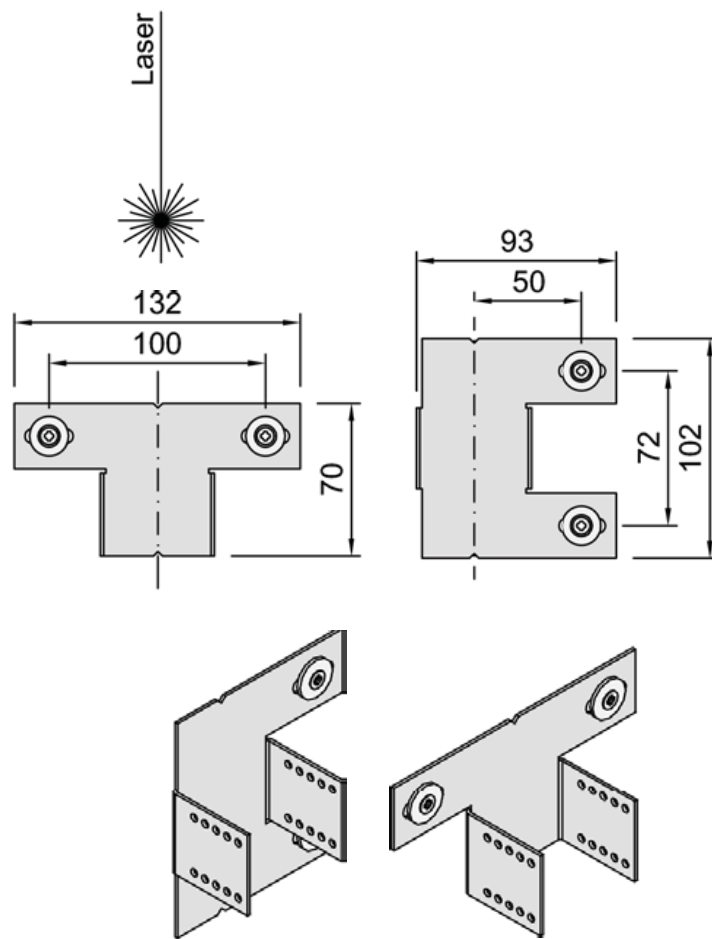
Wall anchor

The wall anchor is designed in such a way that the notches run in the middle of the panel joint and the U-wall profiles. With the aid of a construction laser, the wall anchor can therefore be exactly aligned horizontally.

The suspension points of the corner wall anchor are placed differently than the wall anchor. That allows the approach to corners or other structural elements.

The attachment type should be selected according to the surface with design-type tested fastening technology.

A washer must be used in all cases.

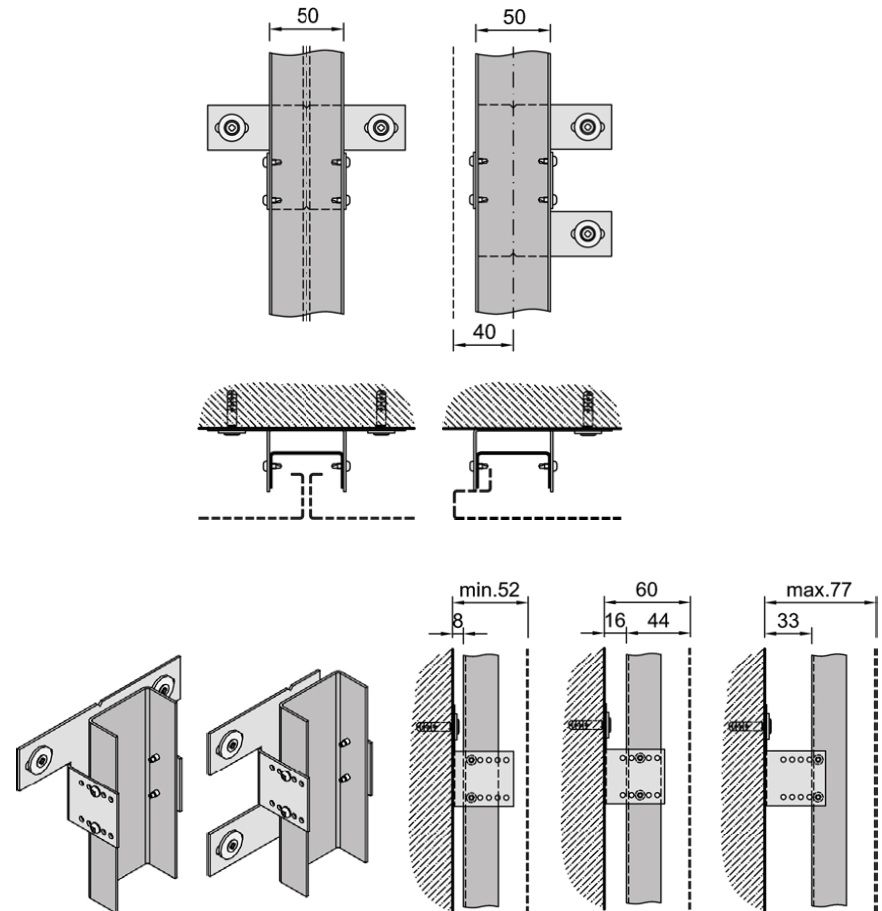


Installation U-wall profile

The U-wall profiles are attached to the wall anchor with four self-tapping screws. By means of the rows of holes, the offset distance can be adjusted continuously.

If the detail is about a corner solution, then the U-wall profile will be displaced horizontally into corresponding direction. This is 40 mm [1-18/32"] from the panel upstand until the middle axis of the profile.

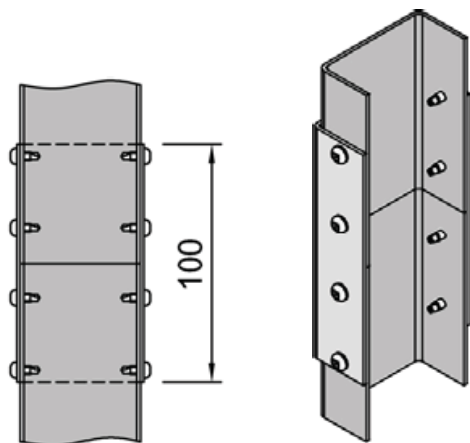
The offset distance of the U-wall profile is variable and the standard is 60 +17 / -8 mm [2-12/32" +9/32" / -10/32"].



Connector for U-wall profile

Alignment of the U-wall profile is made easier by the use of the connector. The result is a straight vertical alignment which is firmly connected.

The connector is attached to the ends of the U-wall profile with eight self-drilling screws.



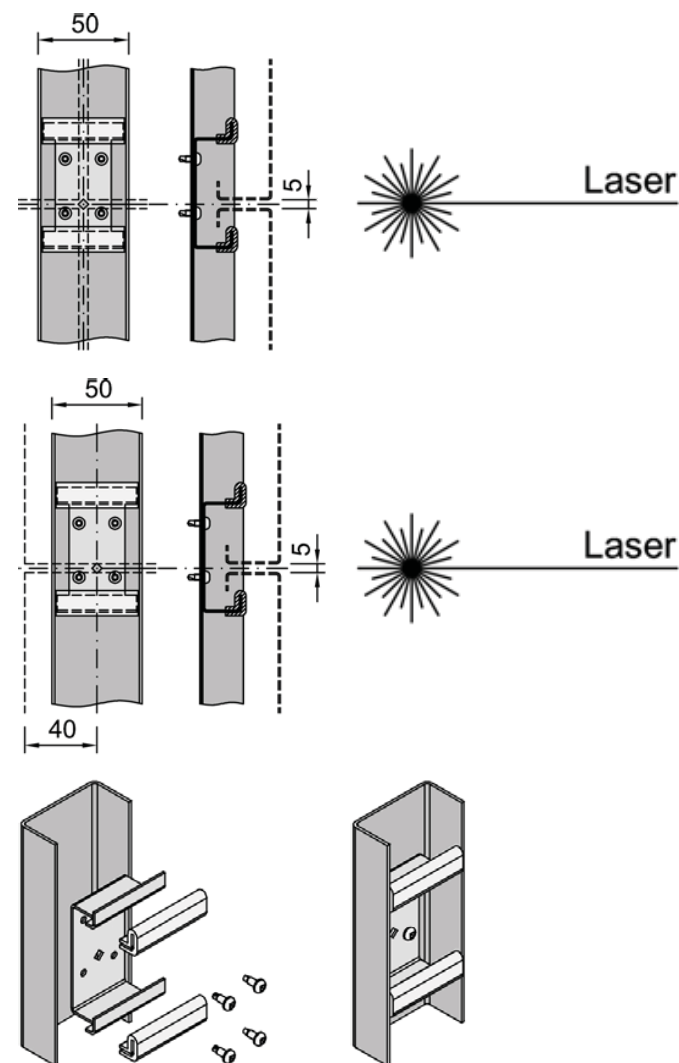
Item No.	Designation
(By Others)	plastic dowel UX-10
(By Others)	screw for plastic dowel UX-10
IND315623	U-wall profile
IND315626	connector for U-wall profile
IND315627	suspending element for U-wall profile
IND315628	supporting bracket for C- and U-wall profile
IND315624	wall anchor zu U-Wandtragprofil
IND315625	corner-wall anchor for U-wall profile
(By Others)	self-drilling screw eco-drill 3.5 × 9.5 mm [4/32" × 12/32"]

Suspending element and supporting bracket for U-wall profile

The suspending element is equipped with a square press cut that is situated exactly in the crossing point of the panel joint. With the aid of a construction laser, the profile can therefore be accurately adjusted.

The suspension element is attached to the U-wall profile with 4 self-drilling screws.

With a corner solution the press cut shows the alignment of the horizontal running joints.



MORE INFORMATION

For more information, or for an Armstrong Ceilings representative, call 877 276-7876.

For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine customer support at 877 276-7876 or FAX 800 572-TECH.

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