Flex Series
(Horizontal Installation)
Installation Guide
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General Notes

The attached installation details are intended to be a design aid and do not depict all situations. Modifications are the responsibility of the designer/user and should take into account climate conditions such as wind and snow, governing code requirements, and the actual usage and maintenance of the structure.

Applications:
Flex Series can be utilized as a wall panel installed in the vertical or horizontal orientation. It shall not be utilized for roof applications. Flex Series can be used over solid substrates or over spaced supports. This installation guide depicts clip attached panels installed using flush mounted clips. Details for direct fastened panels or clip attached panels using standoff clips would be similar.

Flashings:
Where possible, flashings should be lapped away from prevailing winds. Certain flashings should be supported if it is likely that equipment (ladder, etc.) will be used against them. Check with AEP Span any time you intend to specify a prefinished flashing in a gauge or finish different than the Flex Series. It is good practice to specify that all flashings be of the same material (gauge, color, finish) as the roof panels to ensure long-term durability. Field-painted flashings rarely equal the durability and colorfastness of factory baked-on paint systems. The enclosed details have minimized the use of exposed fasteners where possible. The edges of flashings have also been shown hemmed to strengthen and to minimize the exposure of cut edges.

Condensation, Insulation, & Ventilation:
It is the designer's responsibility to determine the need and composition of condensation control materials including insulation and vapor retarders, as well as ventilation requirements. Metal wall products are susceptible to condensation and its control should be carefully considered.

Thermal Movement:
Both panels and flashings must allow for thermal movement (expansion and contraction) of the materials, especially where long lengths are used. Appropriate gaps or provisions must be provided to accommodate thermal movement.

Oil Canning:
Flat metal surfaces often display waviness commonly referred to as 'oil canning'. This can be caused by variations in raw material, processing variations, product handling, or variations in the installation substrate. Oil canning is a characteristic, not a defect, of panels manufactured from light-gauge metal. To reduce potential for oil canning, substrates should not deviate from a flat plane more than 1/4 inch in 20 feet, or 1/8 inch in 5 feet. Oil canning is not a cause for panel rejection. Additional technical information is available upon request.

References:
The Sheet Metal and Air Conditioning Contractors' National Association Inc. (SMACNA) manual is an excellent reference for sheet metal contractors. It’s guidelines for underlayments, gutter and downspout size requirements, and expansion/contraction of metals and flashing joints should be followed.

Technical Assistance:
Contact your AEP Span Sales Representative for additional information.
1.2FX10-12
1 1/2"
12" COVERAGE
2"
2"

1.2FX20-12
1.5FX20-12
1 1/2" & 1/2"
12" COVERAGE
10"

1.2FX30-12
1.5FX30-12
1 1/2" & 1/2"
12" COVERAGE
6"

1.2FX40-12
1.5FX40-12
1 1/2" & 1/2"
12" COVERAGE
4" 2" 4"

PANEL INTERLOCK OPTIONS

DIRECT FASTENED
("D" P/N SUFFIX)

CLIP ATTACHED
("C" P/N SUFFIX)

MATERIAL:
STEEL: 22 & 24GA (20GA NON-STD.)
AVAILABLE LENGTHS: 5'-20'

FLEX SERIES
HORIZONTAL INSTALL.

PANEL DETAILS

FXH-01
CL1.2FX-1P

TOP SIDE CLOSURE FOR ALL PANELS &
BOTTOM SIDE CLOSURE FOR 1.2FX10-12
& 1.2FX30-12

CL1.2FX-2P

BOTTOM SIDE CLOSURE FOR
1.2FX20-12 & 1.2FX40-12

CORNER TEAROFF
FOR PANEL HEM

TEAROFF PERFORATED PLUG
SECTIONS TO FILL PANEL
REVEALS AS REQUIRED

CL1.5FX-1P

TOP SIDE CLOSURE FOR ALL PANELS.
BOTTOM SIDE CLOSURE FOR 1.5FX10-12
& 1.5FX30-12

CL1.5FX-2P

BOTTOM SIDE CLOSURE FOR
1.5FX20-12 & 1.5FX40-12

NOTE: APPLICATIONS UTILIZING STANDOFF CLIP ALSO REQUIRE
UNIVERSAL CLOSURE STRIP (AEP #CLEM1x19.6B OR EQUIV.) TO
SEAL OFF ADDITIONAL 1/2" PANEL-TO-SUBSTRATE GAP.
TOP SIDE CLOSURE INSTALLATION

TOP CLOSURE PLUG
SEALANT BEAD

BOTTOM SIDE CLOSURE INSTALLATION (FLUSH MOUNTED PANELS)

BOTTOM CLOSURE PLUG

1X1 UNIVERSAL CLOSURE STRIP
(AEP #CLEM1X19.66 OR EQUIV.)

NOTES:
- ALL CLOSURE PLUGS SECURED AND SEALED WITH POLYURETHANE SEALANT
(X) - NOT BY AEP SPAN

OPTIONAL: 1"W x 1/8"THK FOAM TAPE (MAS.125PE) TO SECURE CLOSURE PLUGS AGAINST PANEL & SEALANT.

OPTIONAL FIELD FABRICATED CLOSURE COVER TRIM (X)
1. SHIM USED FOR MOISTURE CONTROL (DRAINAGE) IN FLUSH MOUNT APPLICATIONS. (X) – NOT BY AEP SPAN

FLEX SERIES BASE
HORIZONTAL INSTALL.

FLEX SERIES PANELS ARE INSTALLED FROM GROUND TO EAVE.
1. SHIM USED FOR MOISTURE CONTROL (DRAINAGE) IN FLUSH MOUNT APPLICATIONS.

(X) NOT BY AEP SPAN

(V) DIMENSIONS VARY BASED ON PROJECT CONDITIONS
CLIP FASTENER
PANEL CLIP
SUBSTRATE
SPECIFIED UNDERLayment (X)

OPTIONAL FIELD FORMED CLOSURE COVER TRIM (X)
OUTSIDE CLOSURE (SEALED & SECURED WITH SEALANT)
CONTINUOUS BEAD OF NON-SKINNING BUTYL TAPE OR SEALANT
TRIM FASTENER W/SEALING WASHER OR RIVET AT 12" O.C. MAXIMUM
OUTSIDE CORNER TRIM (OC111)

(X) – NOT BY AEP SPAN

AEP SPAN
FLEX SERIES
HORIZONTAL INSTALL.
OUTSIDE CORNER
FXH-08
REV. 6/18/17
1. Shim used for moisture control (drainage) in flush mount applications.

(X) - Not by AEP Span

(V) - Dimensions vary based on project conditions

1 1/2"

COVER TRIM

1/2"

CLIP FASTENER

PANEL CLIP

SUBSTRATE

SPECIFIED UNDERLAYMENT (X)

BUTYL FLASHING TAPE (MAS.0256F)

1/8" THK HORSESHOE SHIM (SHIM.125) OR EQUIVALENT

SEE NOTE 1

Z-METAL

TRIM FASTENER OR RIVET AT 12" O.C. MAXIMUM

DRIP FLASHING)

1/4" GAP

OPTIONAL FIELD FABRICATED CLOSURE COVER TRIM (X)

OUTSIDE CLOSURE (SEALED & SECURED WITH SEALANT)

CONTINUOUS BEAD OF NON-SKINNING BUTYL TAPE OR SEALANT

TRIM FASTENER W/SEALING WASHER OR RIVET AT 12" O.C. MAXIMUM

COVER TRIM (V)
OPTIONAL FIELD FABRICATED CLOSURE COVER TRIM (X)

OUTSIDE CLOSURE (SEALED & SECURED WITH SEALANT)

INSIDE CORNER TRIM (ICO93)

SPECIFIED UNDERLAYMENT (X)

SUBSTRATE

TRIM FASTENER W/SEALING WASHER OR RIVET AT 12" O.C. MAXIMUM

CONTINUOUS BEAD OF NON-SKINNING BUTYL TAPE OR SEALANT

CLIP FASTENER

PANEL CLIP

(X) – NOT BY AEP SPAN
<table>
<thead>
<tr>
<th>TRIM</th>
<th>DIM A</th>
<th>USAGE</th>
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<tr>
<td>MT111</td>
<td>1 1/2&quot;</td>
<td>1.2FX FLUSH MOUNT</td>
</tr>
<tr>
<td>MT112</td>
<td>2&quot;</td>
<td>1.2FX W/0.5&quot; STANDOFF</td>
</tr>
<tr>
<td>MT109</td>
<td>1 3/4&quot;</td>
<td>1.5FX FLUSH MOUNT</td>
</tr>
<tr>
<td>MT113</td>
<td>2 1/4&quot;</td>
<td>1.5FX W/0.5&quot; STANDOFF</td>
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</tbody>
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- CLIP FASTENER
- PANEL CLIP
- SUBSTRATE
- SPECIFIED UNDERLAYERMENT (X)
- OPTIONAL FIELD FABRICATED CLOSURE COVER TRIM (X)
- OUTSIDE CLOSURE (SEALED & SECURED WITH SEALANT)
- CONTINUOUS BEAD OF NON-SKINNING BUTYL TAPE OR SEALANT
- TRIM FASTENER W/SEALING WASHER OR RIVET AT 12" O.C. MAXIMUM
- END SPLICE
- REVEAL FLASHING (V)

(X) – NOT BY AEP SPAN

(v) – DIMENSIONS VARY BASED ON PROJECT CONDITIONS
1 1/2"  
135°  
5/8"  
TC209

1/4:12 MIN. SLOPE

PARAPET FLASHING (V)
BLOCKING (AS REQUIRED)
TRIM CLEAT (TC209)
TRIM FASTENER W/SEALING WASHER
OR RIVET AT 12" O.C. MAXIMUM
CONTINUOUS BEAD OF NON-SKINNING BUTYL TAPE OR SEALANT

SPECIFIED UNDERLAYMENT (X)

SUBSTRATE
CLIP FASTENER
PANEL CLIP

(X) – NOT BY AEP SPAN
(V) – DIMENSIONS VARY BASED ON PROJECT CONDITIONS

FLEX SERIES
HORIZONTAL INSTALL.
PARAPET

REV. 11/16/18
1. SHIM USED FOR MOISTURE CONTROL (DRAINAGE) IN FLUSH MOUNT APPLICATIONS. (X) — NOT BY AEP SPAN
FLEX SERIES
HORIZONTAL INSTALL.

DOOR / WINDOW
(JAMB)

(X) – NOT BY AEP SPAN

REV. 6/19/17

FXH-15
<table>
<thead>
<tr>
<th>TRIM</th>
<th>DIM A</th>
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<tbody>
<tr>
<td>ZC226</td>
<td>1 1/4&quot;</td>
<td>1.2FX FLUSH MOUNT</td>
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<td>ZC220</td>
<td>1 3/4&quot;</td>
<td>1.2FX W/0.5&quot; STANDOFF</td>
</tr>
<tr>
<td>ZC224</td>
<td>1 1/2&quot;</td>
<td>1.5FX FLUSH MOUNT</td>
</tr>
<tr>
<td>ZC227</td>
<td>2&quot;</td>
<td>1.5FX W/0.5&quot; STANDOFF</td>
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WALL CLOSURE (WC217)

TRIM FASTENER W/SEALING WASHER
OR RIVET AT 12" O.C. MAXIMUM

CONTINUOUS BEAD OF NON-SKINNING BUTYL TAPE OR SEALANT

Z-METAL

SUBSTRATE

SPECIFIED UNDERLAYMENT (X)

CLIP FASTENER

PANEL CLIP

(X) — NOT BY AEP SPAN

FLEX SERIES
HORIZONTAL INSTALL.

DOOR / WINDOW (SILL)

REV. 5/12/16

FXH-16
TRIM FASTENER W/SEALING WASHER, OR RIVET
SEALANT
OVERLAP UPPER/LOWER FLASHINGS
WALL PENETRATION

SEAL PERIMETER OF FLASHINGS AND ALL TRIM OVERLAPS WITH A CONTINUOUS BEAD OF NON-SKINNING BUTYL TAPE OR SEALANT
OPTIONAL FIELD FABRICATED CLOSURE COVER TRIM (X)
OUTSIDE CLOSURE (SEALED & SECURED WITH SEALANT)

LOWER VIEW

(X) – NOT BY AEP SPAN

FLEX SERIES
HORIZONTAL INSTALL.

WALL PENETRATION (3D)

FXH-17

REV. 6/18/17
SPECIFIED UNDERLAMENT (X)

SUBSTRATE

TRIM FASTENER W/SEALING WASHER OR RIVET

CONTINUOUS BEAD OF NON-SKINNING BUTYL TAPE OR SEALANT UNDER COVER PERIMETER

SEAL PENETRATION PERIMETER WITH POLYURETHANE SEALANT

WALL PENETRATION

OVERLAPPED PENETRATION COVER

OPTIONAL FIELD FABRICATED CLOSURE COVER TRIM (X)

OUTSIDE CLOSURE (SEALED & SECURED WITH SEALANT)

PROVIDE SUFFICIENT CLEARANCE BETWEEN FLASHING & PENETRATION TO ACCOMODATE THERMAL MOVEMENT.

(X) — NOT BY AEP SPAN
MANUFACTURING FACILITY:

**Tacoma, Washington**
2141 Milwaukee Way
Tacoma, WA 98421

**Fontana, California**
10905 Beech Avenue
Fontana, CA 92337

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**ASC Profiles LLC**
2110 Enterprise Boulevard
West Sacramento, CA 95691

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