# Table of Contents

## Panel Information
- IC72-Panel Profiles ........................................ PIC-2
- Panel Overview ............................................. PIC-2

## Flashing Profiles
- Eave .......................................................... PIC-3
- IC72-Panel Sculptured Gutter ......................... PIC-3
- IC72-Panel Sculptured Gutter End .................... PIC-3
- Universal Gutter/Downspout Strap .................... PIC-3
- 4" x 3½" Downspout ....................................... PIC-3
- 4" x 3½" 90° Elbow ....................................... PIC-3
- Downspout Bracket ....................................... PIC-3
- Valley ........................................................ PIC-3
- IC72-Panel Rake ........................................ PIC-3
- IC72-Panel Sculptured Rake ............................ PIC-3
- Sculptured Rake End ...................................... PIC-3
- Rakewall .................................................... PIC-3
- Pitch Break ................................................ PIC-3
- Peak ........................................................ PIC-3
- Counter Flashing ......................................... PIC-3
- Reglet Flashing .......................................... PIC-4
- Sculptured High Side Eave ............................ PIC-4
- 20" Ridge/Hip Cover ..................................... PIC-4
- Universal Ridge ........................................ PIC-4
- Coping ....................................................... PIC-4
- Gravel Stop ................................................ PIC-4
- Outside Corner ............................................ PIC-4
- Inside Corner ............................................. PIC-4
- IC72-Panel Outside Corner .............................. PIC-4
- IC72-Panel Inside Corner ............................... PIC-4
- 1.5" Sill/Head ............................................ PIC-4
- 1.5" Sill to Soffit ......................................... PIC-4
- IC72-Panel C-Closure .................................... PIC-4
- IC72-Panel Jamb ........................................ PIC-4
- Head Channel ............................................. PIC-4
- Head/Jamb Cover ........................................ PIC-5
- Base ........................................................ PIC-5
- IC72-Panel Gutter Hanger .............................. PIC-5

## Accessory Profiles
- IC72-Panel Light Transmitting Panel ................ PIC-5
- IC72-Panel Closures ..................................... PIC-5
- Universal Closure ........................................ PIC-5
- Tube Sealant ............................................. PIC-5
- Tape Sealant ............................................. PIC-5
- Rubber Roof Jack ......................................... PIC-5
- Retro Roof Jack .......................................... PIC-5
- Rubber Roof Flash Kit ................................... PIC-5
- Touch-Up Paint .......................................... PIC-5

## Testing Information
- Section Properties and General Information ........ PIC-6

## Design/Installation Considerations
- Fastener Installation Technique ..................... PIC-7
- Condition of Substructure ............................. PIC-7
- Roof Panel Fastening Pattern ....................... PIC-8
- Wall Panel Fastening Pattern ......................... PIC-8

## Detail Conditions
- Eave Detail .............................................. PIC-9
- Sculptured Gutter Detail ............................. PIC-9
- Valley Detail ........................................... PIC-10
- Sculptured Rake Detail ............................... PIC-10
- Rakewall Detail ......................................... PIC-11
- Endwall Detail .......................................... PIC-11
- Peak Detail ............................................. PIC-12
- Ridge/ Hip Detail ....................................... PIC-12
- Universal Ridge Detail ............................... PIC-13
- Gravel Stop Detail ..................................... PIC-13
- Outside Corner Detail ................................ PIC-14
- Inside Corner Detail .................................. PIC-14
- Jamb Detail ............................................. PIC-15
- Head Detail ............................................. PIC-15
- Base Detail ............................................. PIC-16

## Notes
- Notes ..................................................... PIC-16
The minimum recommended slope for IC72-Panel roof panel is 1:12.

IC72-Panel is designed to be utilized over open structural framing, but can easily be used with a solid substrate. For solid substrate applications, the recommended substrate is 5/8" plywood with a 30 pound felt moisture barrier. To avoid panel distortion, use a properly aligned and uniform substructure.

IC72-Panel has a coverage of 36" with a 1 1/2" rib height.

Lengths under 5'-0" are available with some cutting restrictions. Maximum recommended panel length is 45'-0". Longer panels require additional consideration in packaging, shipping and erection. Please consult your Metal Sales branch for recommendations (see PGI-2 and PGI-3 for locations).

26, 24 and 22 Gauge (minimum quantities may apply)

Commercial and Industrial Panel

Direct Fastened (exposed)

The fastener selection guide should be consulted for choosing proper fasteners for specific applications. Quantity and type of fastener must meet necessary loading and code requirements (see PGI-12 through PGI-14).

26, 24 and 22 gauge steel: Grade 50 per ASTM A 792

*Acrylic-Coated Galvalume® (ACG), AZ55 per ASTM A 792
Prepainted Galvalume®, AZ50 per ASTM A 792
“PVDF

* Differential appearance of Acrylic Coated Galvalume® roofing materials is not a cause for rejection.
** Meets both Kynar 500® and Hylar 5000® specifications.
IC72-PANEL  FLAShING Profiles

**Eave**

```
<table>
<thead>
<tr>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
</tr>
<tr>
<td>3&quot;</td>
</tr>
<tr>
<td>4(\frac{7}{8})&quot;</td>
</tr>
<tr>
<td>6(\frac{7}{8})&quot;</td>
</tr>
</tbody>
</table>
Length 10'-2" - *Specify Slope Angle
```

**Universal Gutter/Downspout Strap**

```
| Hems |
| 16" |
| 1\(\frac{1}{2}\)" |
```

**Downspout Bracket**

```
| C |
| 4" |
| 6" |
(6" is also available)
```

**IC72-PANEL Sculptured Rake**

```
| C |
| 6" |
| 105° |
| 3\(\frac{1}{2}\)" |
| 150° |
| 3\(\frac{1}{2}\" |
| 2" |
| 2" |
Lengths 10'-2" and 20'-3"
```

**IC72-PANEL SculPTured Gutter**

```
| C |
| 4" |
| 100° |
| 6\(\frac{7}{8}\)" |
| 4" |
Lengths 10'-2" and 20'-3"
```

**IC72-PANEL SculPTured Gutter End**

```
| C |
| 4" |
| 100° |
| 6\(\frac{7}{8}\)" |
Length 10'-2" and 20'-3" (6" x 4" is also available)
```

**4" x 3\(\frac{1}{2}\)" Downspout**

```
| C |
| 4" |
| 3\(\frac{1}{2}\)" |
| 10" |
Lengths 10'-2" and 20'-3" (6" x 4" is also available)
```

**4" x 3\(\frac{1}{2}\)" 90° Elbow**

```
| C |
| 4" |
| 3\(\frac{1}{2}\)" |
(6" x 4" is also available)
```

**Valley**

```
| C |
| 1" |
| 2\(\frac{1}{8}\)" |
| 10° |
| 6" |
Lengths 10'-2" and 20'-3" *Specify Slope Angle
```

**IC72-PANEL Rake**

```
| C |
| 4" |
| 6" |
Lengths 10'-2" and 20'-3"
```

**RakeWall**

```
| C |
| 4" |
| 6" |
Length 10'-2"
```

**Pitch Break**

```
<table>
<thead>
<tr>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;</td>
</tr>
<tr>
<td>6&quot;</td>
</tr>
</tbody>
</table>
Length 10'-2" - *Specify Slope Angle
```

**Peak**

```
<table>
<thead>
<tr>
<th>X</th>
</tr>
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<tbody>
<tr>
<td>C</td>
</tr>
<tr>
<td>6&quot;</td>
</tr>
<tr>
<td>5&quot;</td>
</tr>
<tr>
<td>3(\frac{1}{8})&quot;</td>
</tr>
<tr>
<td>105°</td>
</tr>
<tr>
<td>3(\frac{1}{2})&quot;</td>
</tr>
<tr>
<td>150°</td>
</tr>
<tr>
<td>3(\frac{1}{2})&quot;</td>
</tr>
<tr>
<td>105°</td>
</tr>
<tr>
<td>2&quot;</td>
</tr>
</tbody>
</table>
Lengths 10'-2" and 20'-3" *Specify Slope Angle
```

**Counter Flashing**

```
| C |
| 1" |
| 7\(\frac{1}{8}\)" |
| 1\(\frac{1}{4}\)" |
| 1\(\frac{1}{4}\)" |
Length 10'-2"
```
**IC72-PANEL**  **FLASHING PROFILES (CONT.) / ACCESSORY PROFILES**

### HEAD/JAMB COVER

<table>
<thead>
<tr>
<th>27 1/8”</th>
<th>8 1/8”</th>
</tr>
</thead>
</table>

Lengths 10'-2” and 14'-2”

### BASE

<table>
<thead>
<tr>
<th>C</th>
<th>3 1/2”</th>
</tr>
</thead>
</table>

### IC72-PANEL GUTTER HANGER

<table>
<thead>
<tr>
<th>7/8”</th>
<th>2 1/8”</th>
</tr>
</thead>
</table>

Length 1'-0”

---

**IC72-PANEL ACCESSORY PROFILES**

### IC72-PANEL LIGHT

**TRANSMITTING PANEL**

| 36” |

### IC72-PANEL CLOSURES

Inside and Outside Polyethylene Foam

### UNIVERSAL CLOSURE

| 1” x 1 1/2” x 50’ Polyethylene Foam |
| 1” x 1 1/2” x 10’ Polyethylene Foam |

### TUBE SEALANT

10.3 oz. Cartridge Urethane

### TAPE SEALANT

1/2” X 1/2” X 50’ Single Bead Tape Sealant Butyl - Gray

### RUBBER ROOF JACK

Mini (1/4” to 1/4” O.D. Pipe)
#2 (1 1/4” to 3” O.D. Pipe)
#4 (3” to 6” O.D. Pipe)
#6 (6” to 9” O.D. Pipe)
#8 (7” to 13” O.D. Pipe)

### RETRO ROOF JACK

| #801retro (1/4” to 2/4” O.D. Pipe) |
| #802retro (2” to 7/4” O.D. Pipe) |
| #803retro (31/4” to 10” O.D. Pipe) |

### RUBBER ROOF FLASH KIT

12” x 50'-0” Flash Kit
18” x 50'-0” Flash Kit

### TOUCH-UP PAINT

Available in 2 oz Bottles PVDF / MS Colorfast45°

---

C- Indicates color side of flashing.
**SECTION PROPERTIES**

**ALLOWABLE UNIFORM LOADS psf**

<table>
<thead>
<tr>
<th>Ga</th>
<th>Width</th>
<th>Yield</th>
<th>Weight</th>
<th>Top In Compression</th>
<th>Bottom In Compression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in</td>
<td>ksi</td>
<td>psf</td>
<td>Ixx in^2/ft</td>
<td>Sxx in^2/ft</td>
</tr>
<tr>
<td>26</td>
<td>36</td>
<td>50</td>
<td>0.88</td>
<td>0.0706</td>
<td>0.0817</td>
</tr>
<tr>
<td>24</td>
<td>36</td>
<td>50</td>
<td>1.15</td>
<td>0.1000</td>
<td>0.1208</td>
</tr>
<tr>
<td>22</td>
<td>36</td>
<td>50</td>
<td>1.51</td>
<td>0.1408</td>
<td>0.1757</td>
</tr>
</tbody>
</table>

**GENERAL INFORMATION**

1. Theoretical section properties have been calculated per AISI 2012 “Specifications for the Design of Cold-formed Steel Structural Members.” Ixx and Sxx are effective section properties for deflection and bending.

2. Allowable load is calculated in accordance with AISI 2012 specifications considering bending, shear, combined bending and shear and deflection. Allowable load considers the 3 or more equal span condition. Allowable load does not address web crippling, fasteners/support connection or load testing. Panel weight is not considered.

3. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.

4. Allowable loads do not include a 1/3 stress increase in uplift.

**ATTACHMENT DETAIL**

- **3/4"-14 x 7/8" Stitch Screw (for roof only)**
- **#12-14 x 1 1/4" Self Driller**
- **Tape Sealant (for roof only)**

**FASTENING PATTERNS**

**ENDS OF PANEL**

- **3/4"-14 x 7/8" Stitch Screw (for roof only)**
- **#12-14 x 1 1/4" Self Driller**
- **Tape Sealant (for roof only)**

**FIELD OF PANEL**

- **3/4"-14 x 7/8" Stitch Screw (for roof only)**
- **#12-14 x 1 1/4" Self Driller**
- **Tape Sealant (for roof only)**

**GENERAL INFORMATION**

- **Slope**
  The minimum recommended slope for IC72-Panel is 1:12. Metal Sales recommends that in all roof applications sealants be used on all sidelaps with stitch screw 1'-0" on center.

- **Substructure**
  IC72-Panel is designed to be utilized over open structural framing or a solid substrate. To avoid panel distortion use a properly aligned and uniform substructure.

- **Coverage**
  IC72-Panel is available in a 1 1/2" rib height with a 36" width coverage.

- **Length**
  Minimum factory cut length is 5'-0". Maximum recommended panel length is 45'-0". Longer panels require additional consideration in packaging, shipping, and erection. Please consult Metal Sales for recommendations.

- **Fasteners**
  The fastener selection guide should be consulted for choosing the proper fastener for specific applications. Quantity and type of fastener must meet necessary loading and code requirements.

**Availability**

- Finishes: Acrylic-Coated Galvalume® and PVDF
- Gauges: 26 ga, 24 ga and 22 ga
IC72-PANEL

DESIGN / INSTALLATION CONSIDERATIONS

FASTENER INSTALLATION TECHNIQUE

Recommended Tool Type - Use depth locating nose or adjustable clutch on screw gun to prevent overdrilling and strip out. Do not use impact tools or runners.

Seating the washer - Apply sufficient torque to seat the washer - do not overdrive the fastener.

<table>
<thead>
<tr>
<th>CONDITION OF SUBSTRUCTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whether over solid substrate or open structural framing, panel distortion may occur if not applied over properly aligned and uniform substructure.</td>
</tr>
</tbody>
</table>

The installer should check the roof deck for squareness before installing IC72-Panels. Several methods can be used to verify squareness of the structure for proper installation of the panels.

METHOD "A" - One method for checking the roof for squareness is to measure diagonally across one slope of the roof from similar points at the ridge and eave and obtain the same dimension.

METHOD "B" - The 3-4-5 triangle system may also be used. To use this system measure a point from the corner along the edge of the roof at a module of three (3). Measure a point from the same corner along another edge at a module of four (4). Then by measuring diagonally between the two points established, the dimension should be exactly a module of five (5) to have a square corner. Multiple uses of this system may be required to determine building squareness. If the endwall cannot be made square, the roof system cannot be installed as shown in these instructions.
### ROOF PANEL FASTENING PATTERN

- **1/4"-14 x 7/8" Stitch Screw (1'-0" o.c.)**
- **Tape Sealant**
- **#12-14 x 1 1/4" Self Driller**

#### IC72-Panel Fastening Pattern - Interior

#### IC72-Panel Fastening Pattern - Ends

### WALL PANEL FASTENING PATTERN

- **#12-14 x 1 1/4" Self Driller**

#### IC72-Panel Fastening Pattern - Interior

#### IC72-Panel Fastening Pattern - Ends
IC72-Panel Eave Detail

1:12 Minimum Roof Slope

IC72-Panel Roof Panel
Tape Sealant
#12-14 x 1/4" Self Driller (see below)
IC72-Panel Closure (inside)

Eave
#12-14 x 1/4" Self Driller (see page PIC-8)
Tape Sealant
1/4"-14 x 7/8" Stitch Screw (1'-0" o.c.)
IC72-Panel Closure (outside)
IC72-Panel Wall Panel

1/4"-14 x 7/8" Stitch Screw (1'-0" o.c.)
#12-14 x 1/4" Self Driller

IC72-Panel Roof Fastening Pattern

Tape Sealant

IC72-Panel Sculptured Gutter Detail

1:12 Minimum Roof Slope

IC72-Panel Roof Panel
Tape Sealant
#12-14 x 1/4" Self Driller (see below)
IC72-Panel Closure (inside)

1/4"-14 x 7/8" Stitch Screw (1 per Gutter Hanger)
IC72-Panel Sculptured Gutter
IC72-Panel Gutter Hanger
Tape Sealant
IC72-Panel Closure (inside)
#12-14 x 1/4" Self Driller (see page PIC-8)
IC72-Panel Wall Panel

1/4"-14 x 7/8" Stitch Screw (1'-0" o.c.)
#12-14 x 1/4" Self Driller

IC72-Panel Roof Fastening Pattern

Tape Sealant
IC72-PANEL  RAKEWALL DETAIL

1:12 Minimum Roof Slope

IC72-Panel Wall Panel
#12-14 x 1\(\frac{1}{4}\)" Self Driller (see page PIC-8)
IC72-Panel Closure (inside)
Tape Sealant
Rakewall
\(\frac{1}{4}\"-14 x \frac{7}{8}\"\) Stitch Screw (1'-0" o.c.)
Tape Sealant
IC72-Panel Roof Panel

IC72-PANEL  ENDWALL DETAIL

1:12 Minimum Roof Slope

IC72-Panel Wall Panel
#12-14 x 1\(\frac{1}{4}\)" Self Driller (see page PIC-8)
IC72-Panel Closure (inside)
Tape Sealant
Pitch Break
\(\frac{1}{4}\"-14 x \frac{7}{8}\"\) Stitch Screw (1'-0" o.c.)
Tape Sealant
IC72-Panel Closure (outside)
#12-14 x 1\(\frac{1}{4}\)" Self Driller (see below)
IC72-Panel Roof Panel

IC72-Panel Roof Fastening Pattern
IC72-PANEL PEAK DETAIL

1:12 Minimum Roof Slope

IC72-Panel Roof Panel

1/4"-14 x 7/8" Stitch Screw (1'-0" o.c.)

Tape Sealant

IC72-Panel Closure (outside)

Tape Sealant

#12-14 x 1-1/4" Self Driller (see below)

Peak

Tape Sealant

IC72-Panel Closure (outside)

1/4"-14 x 7/8" Stitch Screw (1'-0" o.c.)

IC72-Panel Wall Panel

IC72-Panel Roof Fastening Pattern

IC72-PANEL RIDGE/HIP DETAIL

1:12 Minimum Roof Slope

IC72-Panel Roof Panel

#12-14 x 1-1/4" Self Driller (see below)

1/4"-14 x 7/8" Stitch Screw (1'-0" o.c.)

Tape Sealant

Closure *

20" Ridge/Hip Cover

IC72-Panel Roof Fastening Pattern

* For Ridge, use IC72-Panel Closure (Outside).
For Hip, use Universal Closure.
**IC72-PANEL**  **UNIVERSAL RIDGE DETAIL**

1:12 Minimum Roof Slope

- IC72-Panel Roof Panel
- #12-14 x 1¼" Self Driller (see below)
- ⅛"-14 x ⅜" Stitch Screw (each rib)
- Tape Sealant
- IC72-Panel Closure (outside)
- Universal Ridge Cover

**IC72-PANEL**  **GRAVEL STOP DETAIL**

- Fastener (by others)
- Tape Sealant
- Gravel Stop
- IC72-Panel Closure (outside)
- Tape Sealant
- ⅛"-14 x ⅜" Stitch Screw (1'-0" o.c.)
- #12-14 x 1¼" Self Driller (see page PIC-8)
- IC72-Panel Wall Panel
IC72-PANEL OUTSIDE CORNER DETAIL

Outside Corner
IC72-Panel C-Closure
Tape Sealant
1/4"-14 x 7/8" Stitch Screw (1'-0" o.c.)
#12-14 x 1 1/4" Self Driller (1'-0" o.c.)
IC72-Panel Wall Panel

IC72-PANEL INSIDE CORNER DETAIL

Inside Corner
1/4"-14 x 7/8" Stitch Screw (1'-0" o.c.)
Tape Sealant
IC72-Panel C-Closure
#12-14 x 1 1/4" Self Driller (1'-0" o.c.)
IC72-Panel Wall Panel
**IC72-Panel Jamb Detail**

- Head/Jamb Cover
- IC72-Panel Wall Panel
- #12-14 x 1\(\frac{3}{4}\)" Self Driller (see page PIC-8)
- #12-14 x 1\(\frac{3}{4}\)" Self Driller (1'-0" o.c.)
- IC72-Panel Jamb

**IC72-Panel Head Detail**

- Head Channel
- Tape Sealant
- IC72-Panel Wall Panel
- IC72-Panel Closure (inside)
- #12-14 x 1\(\frac{3}{4}\)" Self Driller (see page PIC-8)
- Head/Jamb Cover