

Issue Date: 02-19-2024
Revision Date: 04-08-2026
Renewal Date: 02-28-2027

DIVISION: 07 00 00 – Thermal and Moisture Protection
Section: 07 41 13 – Metal Roofing Panels

REPORT HOLDER:
Morin Corporation
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REPORT SUBJECT:
Morin MorZip, SLR, SWL and Symmetry Metal Roofing Panels

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021, 2018 *International Building Code*® (IBC)
- 2024, 2021, 2018 *International Residential Code*® (IRC)
- 2025 *California Building Code* (CBC)
- 2025 *California Residential Code* (CRC)

NOTE: This report references the most recent editions of the Codes cited. Section numbers in earlier editions may differ.

1.2 The MorZip, SLR, SWL, and Symmetry roofing panels have been evaluated for the following properties (see Table 1):

- Physical properties
- Wind resistance
- Fire classification

1.3 The MoZip, SLR, SWL, and Symmetry roofing panels have been evaluated for the following uses (see Table 1):

- Metal roof panels in accordance with IBC Section 1507.4 and IRC Section R905.10

2.0 STATEMENT OF COMPLIANCE

The MorZip, SLR, SWL, and Symmetry roofing panels comply with the Codes listed in Section 1.1, for the properties stated

in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 MorZip, SLR, SWL, and Symmetry Roofing Panels: The roofing panels are made of steel sheet, 55% aluminum-zinc alloy-coated structural steel (SS), Grade 40 or 50, Class 1, conforming to ASTM A792; or aluminum, Type 3003-H14/3004-H34, conforming to ASTM B209. See the span tables and figures at the end of this report for thicknesses and profiles.

3.2 Panel Clips: The panel clips are illustrated in Tables 2 through 5. MorZip clips are 20 ga. steel, SLR clips are 22 ga. steel, SWL clips are 18 ga. steel, and Symmetry clips are 16 ga. steel. The clips are formed from G90 galvanized steel conforming to ASTM A792.

3.3 Fasteners: Fasteners shall be self-drilling, self-tapping corrosion-resistant screws. Screw size and specification are determined by the design.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Wind Resistance: When installed as described in this report, the panels have an allowable wind resistance as denoted in the Span Tables at the end of this report.

4.2 Fire Classification: The metal panels are Class A roof assemblies when installed in accordance with Exception 2 in IBC Section 1505.2 or Exception 2 in IRC Section R902.1. For use over combustible roof decks, tests in accordance with ASTM E108 or UL 790 must be provided to the satisfaction of the Authority Having Jurisdiction.

5.0 INSTALLATION

5.1 General: The MorZip, SLR, SWL, and Symmetry roofing panels must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report.



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A copy of the manufacturer's instructions must be available on the jobsite during installation.

The panels must be with seams running eave to ridge. The roof deck and framing members must be specified by design and must be justified by engineering analysis. The panels must be attached to framing using the applicable system clip at the spacing indicated for the panel spans in Tables 2 through 5 at the end of this report. The type of fastener and the number of fasteners used per clip must be designed, and calculations by a registered design professional must be provided to the building official.

Underlayment complying with, and installed in accordance with, IBC Section 1507.1.1 or IRC Section R905.1.1, as applicable, is required.

Flashing must be in accordance with IBC Section 1503.2 and IRC Section R903.2.

Minimum roof slope is 1/4:12.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 Structural calculations demonstrating that applied loads are less than the allowable loads must be submitted to the local building official for approval.

6.3 The approval of the structural substrate to which the panels are attached is beyond the scope of this report.

6.4 A licensed design professional shall analyze the fasteners for pullout for use with the specified roof deck and framing. The framing shall be verified by the structural plans examiner.

6.5 The allowable wind uplift resistance shown in the tables at the end of this report is for the metal panels only. The roof deck and framing to which the panels are attached must be designed for components and cladding in accordance with IBC Section 1609 and IRC Section R301.2.1.

6.6 The panels are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM E1592.

7.2 Intertek Listing Report "Morin MorZip, SLR, SWL, and Symmetry Series Metal Roofing Panels," on the [Intertek Directory of Building Products](#).

7.3 Quality Control Documentation.

8.0 IDENTIFICATION

The MorZip, SLR, SWL, and Symmetry roofing panels are identified with the manufacturer's name (Morin Corporation), the product name, job or lot number, the Intertek Mark as shown below, the Intertek Control Number and the Code Compliance Research Report number (CCRR-0531).



9.0 OTHER CODES

9.1 CALIFORNIA BUILDING CODE

The MorZip, SLR, SWL and Symmetry roofing panels, described in Sections 2.0 through 7.0 of this Research Report, comply with the California Building Code, California Residential Code, and California Energy Code, for the editions indicated in Section 1.1 of this report, subject to the following conditions:

- Use of the MorZip, SLR, SWL, and Symmetry roofing panels for compliance with the Wildland-Urban Interface (WUI) provisions of CBC Chapter 7A and CRC Section R337 has not been evaluated, and is outside the scope of this Research Report.

For projects that are submitted to the California Department of State Architects, Intertek meets the requirements of IR A-5, *Product and Material Acceptance Based on a Valid Evaluation Report*, Section 2.4, as follows:





2.4 This section applies to Evaluation Reports that are authored by a product certification organization not listed in Section 2.3. Intertek meets these requirements as follows:

2.4.1 Intertek is accredited to issue code evaluations for roofing products in accordance with ISO 17065 by the International Accreditation Service (IAS), under Certificate PCA-101.

2.4.2 Testing was performed by independent (independent from the manufacturer) laboratories accredited to ISO/IEC 17025.

2.4.3 The acceptance criteria used as the basis of the CCRR are contained within the code-referenced standard, ASTM E1592.

2.4.4 This section is related to seismic qualification and does not apply to the Morin Corp. roofing panels.

2.5 This section enumerates requirements for the Evaluation Reports. Intertek meets these requirements as follows:

2.5.1 This CCRR establishes compliance with the current CBC.

2.5.2 This CCRR establishes that the Morin roofing panels successfully completed all required tests.

2.5.3 The Morin roofing panels are under a quality control program with inspections by Intertek.

2.5.4 This section is related to seismic qualification and does not apply to the Morin Corp. roofing panels.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.



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TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2024 IBC 2025 CBC	2024 IRC 2025 CRC
Physical properties	1507.4	R905.10
Wind resistance	1504.4.2	R905.10.5
Fire classification	1505	R902.1

Section numbers in earlier editions of the Codes may differ.

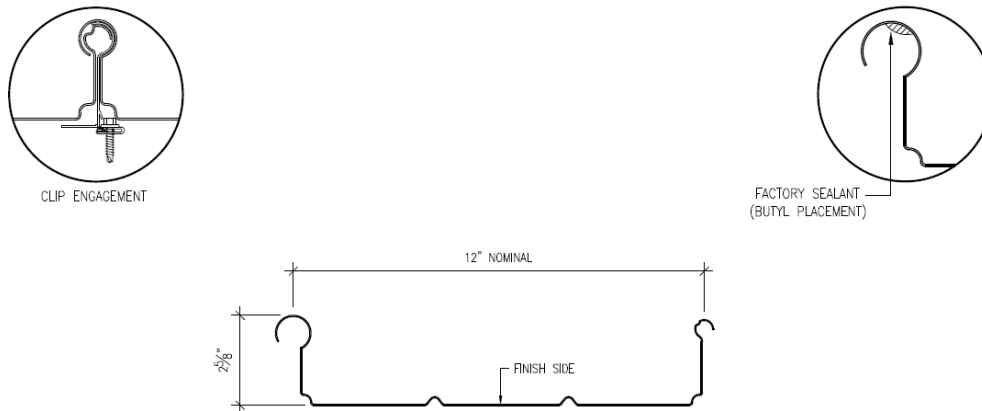
Notes for the Span Tables and Drawings (Tables 2 through 5) on the following pages:

1. Values shown are uniformly distributed negative loads for multiple span conditions (≥ 3 spans)
2. Values do not include consideration of sub-framing or fasteners, to be determined by qualified personnel
3. All pressures values reflect a safety factor of 2.0 (Ultimate load/2.0)
4. Ultimate loads determined from ASTM E1592 testing which is limited to the assembly of Metal panel, applicable clip and fastener system, does not include – flashing, sealants, sub-framing, metal studs, or insulation
5. Requires use of applicable system Clip
6. * Indicates tested material (all other values are interpolated)
7. For project specific calculations, please contact Morin Technical Services at 800-640-9501

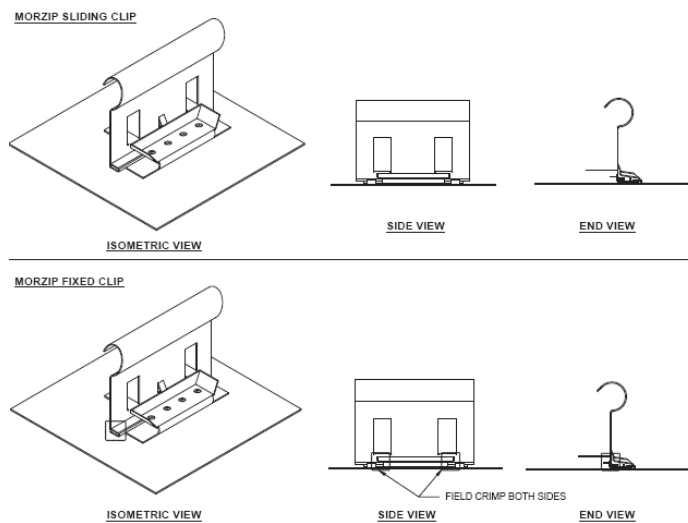




TABLE 2 – MORZIP SERIES PANELS – ILLUSTRATIONS, ALLOWABLE LOADS AND SPANS



MorZip Panel Profile: MZ-12-2 shown (similar for MZ-16-2 and MZ-18-2)



Morzip Series Clip



Galvalume

Panel Type	Panel Width (in.)	Panel Thickness (ga.)	Deflection Limit	Clip Type	Allowable Uplift Pressures (psf), Panel Span (ft.)									
					1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Morin MorZip™ Series	12	24*	L/180	MorZip Clip	68.1	60.6	56.9	53.2	49.4	45.7	41.9	38.2	34.5	30.7
		22*			91.5	80.6	75.1	69.6	64.2	58.7	53.3	47.8	42.3	36.9
		20*			138.9	119.4	109.7	99.9	90.2	80.4	70.7	60.9	51.2	41.5
	16	24			78.4	65.1	58.6	52.0	45.5	38.9	32.3	25.7	19.1	12.5
		22*			81.4	71.4	66.4	61.4	56.5	51.5	46.5	41.6	33.1	30.6
		20*			84.5	77.7	74.3	70.9	67.5	64.1	60.7	57.4	52.3	47.9
	18	24*			23.4	23.0	22.8	22.6	22.5	22.3	22.1	21.9	21.7	21.5
		22*			36.4	34.7	33.8	33.0	32.1	31.2	30.4	29.5	28.6	27.8
		20*			79.1	73.0	69.9	66.9	63.8	60.7	57.7	54.5	51.5	48.5
		20*												

Notes:

- Values shown are uniformly distributed negative loads for multiple span conditions (≥ 3 spans).
- Values do not include consideration of sub-framing or fasteners, to be determined by qualified personnel.
- All pressures values reflect safety factor of 2.0 (Ultimate load/2.0).
- Ultimate loads determined from ASTM E1592 testing which is limited to the assembly of metal panel, MorZip clip and fasteners system, does not include – flashing, sealants, sub-framing, metal studs, and insulation.
- Requires use of MorZip Clip.
- * Indicates tested material (all other values are interpolated).
- Galvalume material confirming to ASTM A792.
- For project specific calculations, please contact Morin Technical Services at 800-640-9501.

Aluminum

Panel Type	Panel Width (in.)	Panel Thickness (in.)	Deflection Limit	Clip Type	Allowable Uplift Pressures (psf), Panel Span (ft.)									
					1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Morin MorZip™ Series	12	0.040*	L/180	MorZip Clip	67.8	60.3	56.6	52.8	49.1	45.4	41.6	37.9	34.2	30.4
		0.050*			133.5	111.5	100.5	89.5	78.5	67.5	56.5	45.5	34.5	23.5
	16	0.040*			42.7	39.2	37.4	35.6	33.8	32.0	30.2	28.5	26.7	24.9
		0.050*			61.9	55.2	51.8	48.5	45.1	41.7	38.4	35.0	31.6	28.3
	18	0.040*			28.8	27.1	26.2	25.4	24.5	23.6	22.8	21.9	21.0	20.2
		0.050			44.0	41.2	39.8	38.4	37.0	35.6	34.2	32.8	31.4	30.0

Notes:

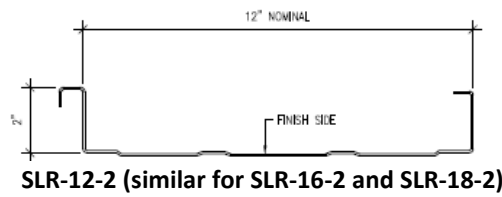
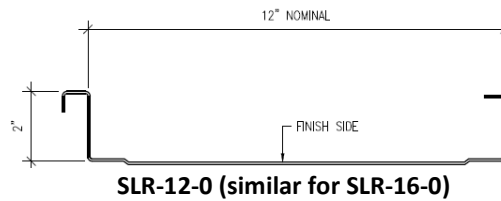
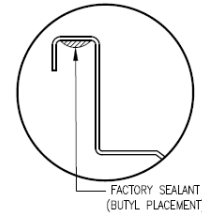
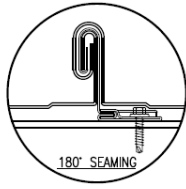
- Values shown are uniformly distributed negative loads for multiple span conditions (≥ 3 spans).
- Values do not include consideration of sub-framing or fasteners, to be determined by qualified personnel.
- All pressures values reflect safety factor of 2.0 (Ultimate load/2.0).
- Ultimate loads determined from ASTM E1592 testing which is limited to the assembly of metal panel, MorZip clip and fasteners system, does not include – flashing, sealants, sub-framing, metal studs, and insulation.
- Requires use of MorZip Clip.
- * Indicates tested material (all other values are interpolated).
- Aluminum material confirming to 3004-H34; reach out to Morin technical for anodized (5005-H34) or any other Aluminum material.
- For project specific calculations, please contact Morin Technical Services at 800-640-9501.

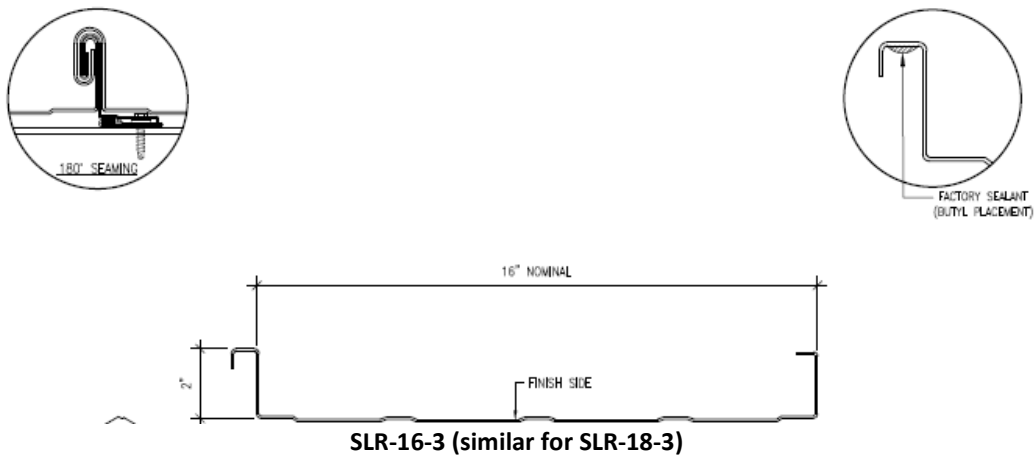


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TABLE 3 – SLR SERIES PANELS - ILLUSTRATIONS, ALLOWABLE LOADS AND SPANS





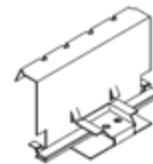
2" SLR SLIDING CLIP



END VIEW



SIDE VIEW



ISOMETRIC VIEW

SLR Series Clips



Galvalume

Panel Type	Panel Width (in.)	Panel Thickness (ga.)	Deflection Limit	Clip Type	Allowable Uplift Pressures (psf), Panel Span (ft.)										
					1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
SLR	12	24*	L/180	SLR Clip	81.2	–	76.3	73.8	71.3	68.8	66.3	63.9	61.4	58.9	56.4
		22			131.2	–	117.9	111.3	104.6	98.0	91.3	84.7	78.0	71.4	64.7
		20*			181.2	–	159.5	148.7	137.9	127.1	116.3	106.0	94.6	83.8	73.0
	16	24*			107.4	–	88.5	79.1	69.6	60.2	50.7	41.3	31.8	22.4	–
		22*			120.2	–	102.7	94.0	85.2	76.5	67.7	59.0	50.2	41.5	32.7
		20			133.1	–	117.0	108.9	100.9	92.8	84.7	76.7	68.6	60.5	52.5
	18	24*			92.3	–	83.9	75.5	67.1	58.7	50.2	41.8	33.4	25.0	16.6
		22*			127.4	–	115.4	103.4	91.4	79.4	67.1	55.4	43.4	31.4	19.4
		20			162.1	–	146.9	131.3	115.7	100.2	84.6	69.0	53.4	37.8	22.2

Notes:

- Values shown are uniformly distributed negative loads for multiple span conditions (≥ 3 spans).
- Values do not include consideration of sub-framing or fasteners, to be determined by qualified personnel.
- All pressures values reflect safety factor of 2.0 (Ultimate load/2.0).
- Ultimate loads determined from ASTM E1592 testing which is limited to the assembly of metal panel, SLR clip and fasteners system, does not include – flashing, sealants, sub-framing, metal studs, and insulation.
- Requires use of SLR Clip.
- * Indicates tested material (all other values are interpolated).
- Galvalume material conforming to ASTM A792.
- For project specific calculations, please contact Morin Technical Services at 800-640-9501.

Aluminium

Panel Type	Panel Width (in.)	Panel Thickness (in.)	Deflection Limit	Clip Type	Allowable Uplift Pressures (psf), Panel Span (ft.)										
					1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
SLR	12	0.032	L/180	SLR Clip	–	–	91.3	85.3	79.3	73.4	67.4	61.4	55.4	49.4	43.4
		0.040			–	–	128.7	116.4	104.1	91.9	79.6	67.3	55.1	42.7	30.4
	16	0.032*			–	–	70.5	64.4	58.2	52.1	45.9	39.8	33.6	27.5	21.3
		0.040*			–	–	95.8	86.4	77.0	67.6	58.2	48.8	39.4	30.0	20.6
	18	0.032*			–	–	60.1	53.9	47.6	41.4	35.2	28.9	22.7	16.4	10.2
		0.040*			–	–	62.9	57.7	52.5	47.3	42.0	36.8	31.6	26.4	21.2

Notes:

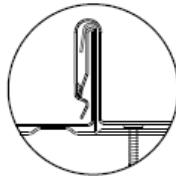
- Values shown are uniformly distributed negative loads for multiple span conditions (≥ 3 spans).
- Values do not include consideration of sub-framing or fasteners, to be determined by qualified personnel.
- All pressures values reflect safety factor of 2.0 (Ultimate load/2.0).
- Ultimate loads determined from ASTM E1592 testing which is limited to the assembly of metal panel, SLR clip and fasteners system, does not include – flashing, sealants, sub-framing, metal studs, and insulation.
- Requires use of SLR Clip.
- * Indicates tested material (all other values are interpolated).
- Aluminum material conforming to 3003-H14; reach out to Morin technical for anodized (5005-H34) or any other Aluminum material
- For project specific calculations, please contact Morin Technical Services at 800-640-9501.



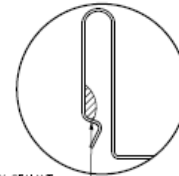
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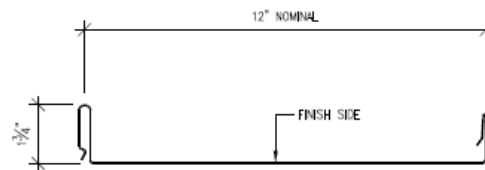
TABLE 4 – SWL SERIES PANELS - ILLUSTRATIONS, ALLOWABLE LOADS AND SPANS



CLIP ENGAGEMENT



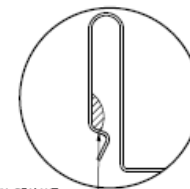
FACTORY SEALANT
(BUTYL PLACEMENT)



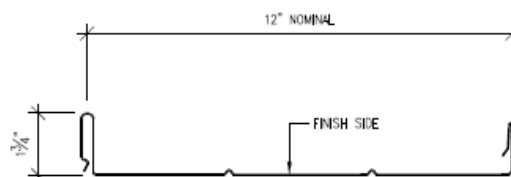
SWL-12-0 (similar for SWL-16-0)



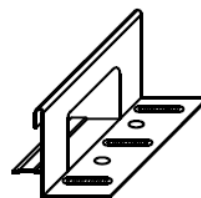
CLIP ENGAGEMENT



FACTORY SEALANT
(BUTYL PLACEMENT)



SWL-12-2 (similar for SWL-16-2 and SWL-18-2)



SWL CLIP



Panel Type: SWL
 Material Type: Aluminum
 Deflection Limit: L/180
 Clip Type: SWL Clip

Panel Width in.	Panel Thickness in.	Allowable Uplift Pressures, psf							
		Panel Span, ft							
		1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0
8	0.040*	36.7	33.4	31.7	30.1	28.4	26.7	25.1	23.4
12	0.040*	26.0	24.3	23.5	22.6	21.8	20.9	20.1	19.2
16	0.032*	28.9	24.6	22.4	20.3	18.1	16.0	13.8	11.6
	0.040*	36.8	32.7	30.7	28.6	26.6	24.5	22.5	20.5

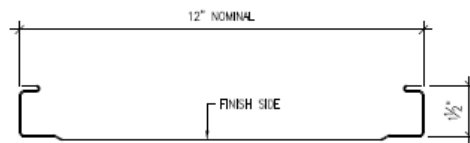
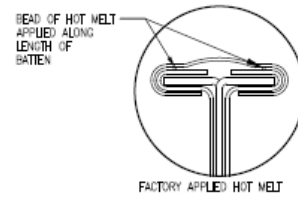
Panel Type: SWL
 Material Type: Galvalume
 Deflection Limit: L/180
 Clip Type: SWL clip

Panel Width in.	Panel Thickness in.	Allowable Uplift Pressures, psf							
		Panel Span, ft							
		1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0
12	22ga	57.8	52.4	49.7	47.0	44.3	41.5	38.8	36.1
16	22ga*	55.4	50.2	47.6	45.0	42.4	39.8	37.1	34.5
	24ga*	39.6	35.3	33.1	31.0	28.8	26.6	24.5	22.3
18	22ga	55.8	49.4	46.2	43.0	39.7	36.5	33.3	30.1

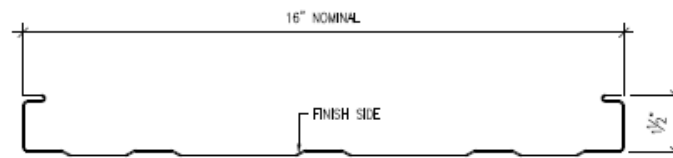
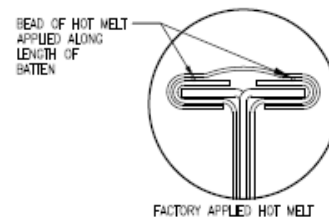


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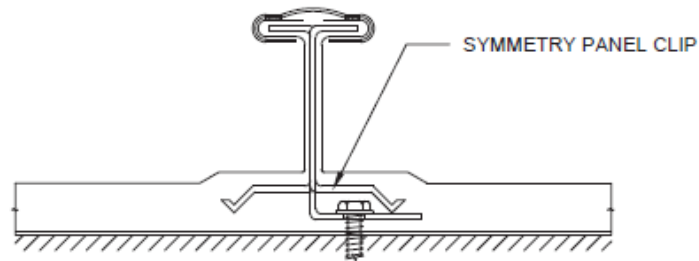
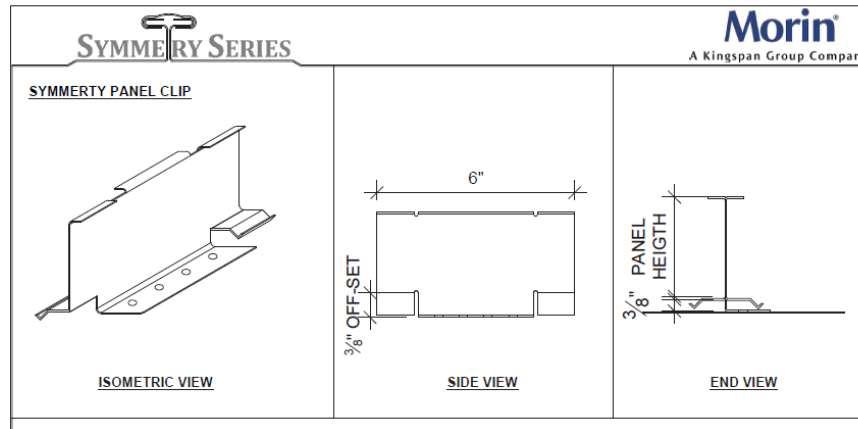


TABLE 5 – SYMMETRY SERIES PANELS – ILLUSTRATIONS, ALLOWABLE LOADS AND SPANS


SYM1.5-12-0 (similar for SYM1.5-16-0, SYM 2.0-12-0, SYM2.0-16-0, SYM2.5-12-0, SYM2.5-16-0, SYM3.0-12-0 and SYM3.0-16-0)



SYM1.5-16-3 (similar for SYM1.5-18-3, SYM2.0-16-3, SYM2.0-18-3, SYM2.5-16-3, SYM2.5-18-3, SYM3.0-16-3, SYM3.0-18-3)





Galvalume

Panel Type	Seam Height (in.)	Panel Width (in.)	Panel Thickness (ga.)	Deflection Limit	Clip Type	Allowable Uplift Pressures (psf), Panel Span (ft.)									
						1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Morin SymmeTry Series®	1.5	12	24*	L/180	SymmeTry Clip	94.5	83.4	77.9	72.3	66.8	61.2	55.7	50.1	44.6	39.0
			22			133.6	118.1	110.4	102.6	94.9	87.2	79.4	71.7	64.0	56.2
			20*			172.6	152.8	142.9	133.0	123.0	113.1	103.2	93.3	83.4	73.5
		16	24			59.0	53.6	50.9	48.2	45.5	42.8	40.1	37.4	34.7	32.0
			22			100.3	88.6	82.8	76.9	71.1	65.2	59.4	53.5	47.7	41.8
			20			141.8	123.7	114.7	105.7	96.7	87.7	78.7	69.6	60.6	51.6
		18	24*			41.2	38.6	37.4	36.1	34.8	33.6	32.3	31.0	29.8	28.5
			22			83.7	73.9	69.0	64.1	59.2	54.2	49.3	44.4	39.5	34.6
			20*			126.5	109.3	100.7	92.1	83.5	74.9	66.3	57.7	49.1	40.5
	2	12	24	L/180	SymmeTry Clip	87.3	78.6	74.2	69.9	65.5	61.2	56.9	52.5	48.2	43.8
			22			131.6	117.4	110.2	103.1	96.0	88.8	81.7	74.6	67.4	60.3
			20			176.0	156.2	146.2	136.3	126.4	116.4	106.5	96.6	86.7	76.7
		16	24			55.3	50.9	48.8	46.6	44.4	42.2	40.1	37.9	35.7	33.6
			22			97.4	86.8	81.5	76.2	70.9	65.6	60.3	55.1	49.8	44.5
			20			139.0	122.2	113.9	105.5	97.1	88.8	80.4	72.0	63.7	55.3
		18	24			40.1	37.8	36.6	35.5	34.4	33.1	32.0	30.8	29.7	28.5
			22			80.2	71.5	67.1	62.8	58.4	54.0	49.7	45.3	40.9	36.6
			20			120.4	105.2	97.6	90.1	82.5	74.9	67.3	59.7	52.2	44.6
	2.5	12	24	L/180	SymmeTry Clip	65.5	64.1	63.4	62.6	61.9	61.2	60.5	59.8	59.1	58.3
			22			128.8	115.9	109.4	103.0	96.5	90.1	83.7	77.2	70.8	64.3
			20			179.4	159.5	149.6	139.7	129.7	119.8	109.8	99.9	89.9	80.0
		16	24			56.9	51.2	48.4	45.5	42.7	39.8	37.0	34.2	31.3	28.5
			22			95.8	86.0	81.2	76.3	71.5	66.6	61.7	56.9	52.0	47.1
			20			107.6	97.9	93.0	88.2	83.3	78.4	73.6	68.7	63.9	59.0
		18	24			38.8	36.7	35.7	34.7	33.6	32.6	31.6	30.6	29.5	28.5
			22			76.7	69.1	65.3	61.4	57.6	53.8	50.0	46.2	42.3	38.5
			20			114.5	101.3	94.7	88.1	81.5	74.9	68.3	61.7	55.1	48.5
	3	12	24*	L/180	SymmeTry Clip	72.8	68.9	67.0	65.1	63.1	61.2	59.3	57.4	55.4	53.5
			22			127.8	115.9	110.0	104.0	98.1	92.1	86.2	80.3	74.3	68.4
			20*			182.8	162.9	153.0	143.0	133.0	123.1	113.1	103.2	93.2	83.2
		16	24			49.5	47.0	45.7	44.5	43.2	41.9	40.7	39.4	38.2	36.9
			22			91.4	83.1	78.9	74.8	70.6	66.4	62.3	58.1	54.0	49.8
			20			133.3	119.2	112.1	105.1	98.0	90.9	83.9	76.8	69.7	62.7
		18	24*			37.9	36.0	35.1	34.2	33.2	32.3	31.3	30.4	29.4	28.5
			22			73.2	66.7	63.4	60.1	56.9	53.6	50.3	47.0	43.8	40.5
			20*			108.6	97.3	91.7	86.1	80.5	74.5	69.3	63.6	58.0	52.4

Notes:

- Values shown are uniformly distributed negative loads for multiple span conditions (≥3 spans).
- Values do not include consideration of sub-framing or fasteners, to be determined by qualified personnel.
- All pressures values reflect safety factor of 2.0 (Ultimate load/2.0).
- Ultimate loads determined from ASTM E1592 testing which is limited to the assembly of metal panel, SymmeTry clip and fasteners system, does not include – flashing, sealants, sub-framing, metal studs, and insulation.
- Requires use of SymmeTry Clip.
- * Indicates tested material (all other values are interpolated).
- Galvalume material conforming to ASTM A792.
- For project specific calculations, please contact Morin Technical Services at 800-640-9501.



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Aluminum

Panel Type	Seam Height (in.)	Panel Width (in.)	Panel Thickness (in.)	Deflection Limit	Clip Type	Allowable Uplift Pressures (psf), Panel Span (ft.)									
						1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Morin SymmeTry Series®	1.5	12	0.040*	L/180	SymmeTry Clip	138.3	121.4	112.9	104.4	95.9	87.5	79.0	70.5	62.0	53.6
			0.050*			99.5	92.7	89.3	85.9	82.4	79.0	75.6	72.2	68.8	65.4
		16	0.040			65.5	61.7	59.8	57.9	56.0	54.1	52.3	50.4	48.5	46.6
			0.050			98.8	90.5	86.3	82.2	78.0	73.8	69.7	65.5	61.3	57.2
		18	0.040*			61.9	58.1	56.2	54.4	52.5	50.6	48.7	46.9	45.0	43.1
			0.050*			97.9	88.2	83.3	78.5	73.6	68.7	63.9	59.0	54.1	49.3
	2	12	0.040	L/180	SymmeTry Clip	46.1	48.4	49.5	50.6	51.7	52.9	54.0	55.1	56.2	57.4
			0.050			109.0	100.0	95.5	91.1	86.6	82.1	77.6	73.1	68.6	64.1
		16	0.040			75.6	69.0	65.7	62.4	59.1	55.8	52.5	49.2	45.9	42.6
			0.050			104.4	95.2	90.6	86.0	81.4	76.8	72.2	67.6	63.0	58.4
		18	0.040			62.2	57.4	55.0	52.6	50.2	47.8	45.4	43.0	40.7	38.3
			0.050			95.1	85.5	80.7	75.9	71.1	66.3	61.5	56.7	51.9	47.1
	2.5	12	0.040	L/180	SymmeTry Clip	104.0	95.4	91.1	86.9	82.6	78.3	74.0	69.8	65.5	61.2
			0.050			118.2	107.3	101.8	96.3	90.7	85.2	79.7	74.2	68.7	63.2
		16	0.040			76.1	69.5	66.2	62.9	59.6	56.2	52.9	49.6	46.3	43.0
			0.050			101.0	91.0	86.0	81.0	76.0	71.0	66.0	61.0	56.0	51.0
		18	0.040			62.6	56.7	53.8	50.9	48.0	45.1	42.1	39.2	36.3	33.4
			0.050			92.3	82.9	78.1	73.4	68.6	63.9	59.2	54.4	49.7	44.9
	3	12	0.040*	L/180	SymmeTry Clip	86.8	82.4	80.2	78.1	75.9	73.7	71.5	69.4	67.2	65.0
			0.050*			127.0	114.5	108.0	101.5	94.9	88.4	81.8	75.3	68.7	62.2
		16	0.040			70.8	64.8	61.8	58.8	55.8	52.8	49.8	46.8	43.8	40.8
			0.050			99.1	88.8	83.6	78.5	73.3	68.2	63.1	57.9	52.8	47.6
		18	0.040*			62.9	56.0	52.6	49.2	45.7	42.3	38.9	35.5	32.0	28.6
			0.050*			89.5	80.2	75.5	70.8	66.2	61.5	56.8	52.1	47.5	42.8

Notes:

- 1 Values shown are uniformly distributed negative loads for multiple span conditions (≥3 spans).
- 2 Values do not include consideration of sub-framing or fasteners, to be determined by qualified personnel.
- 3 All pressures values reflect safety factor of 2.0 (Ultimate load/2.0).
- 4 Ultimate loads determined from ASTM E1592 testing which is limited to the assembly of metal panel, SymmeTry clip and fasteners system, does not include – flashing, sealants, sub-framing, metal studs, and insulation.
- 5 Requires use of SymmeTry Clip.
- 6 * Indicates tested material (all other values are interpolated).
- 7 Aluminum material conforming to 3003-H14; reach out to Morin technical for anodized (5005-H34) or any other Aluminum material.
- 8 For project specific calculations, please contact Morin Technical Services at 800-640-9501.



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