

ACI BUILDING
SYSTEMS

PRODUCT CATALOG





WHO WE ARE

ABOUT ACI

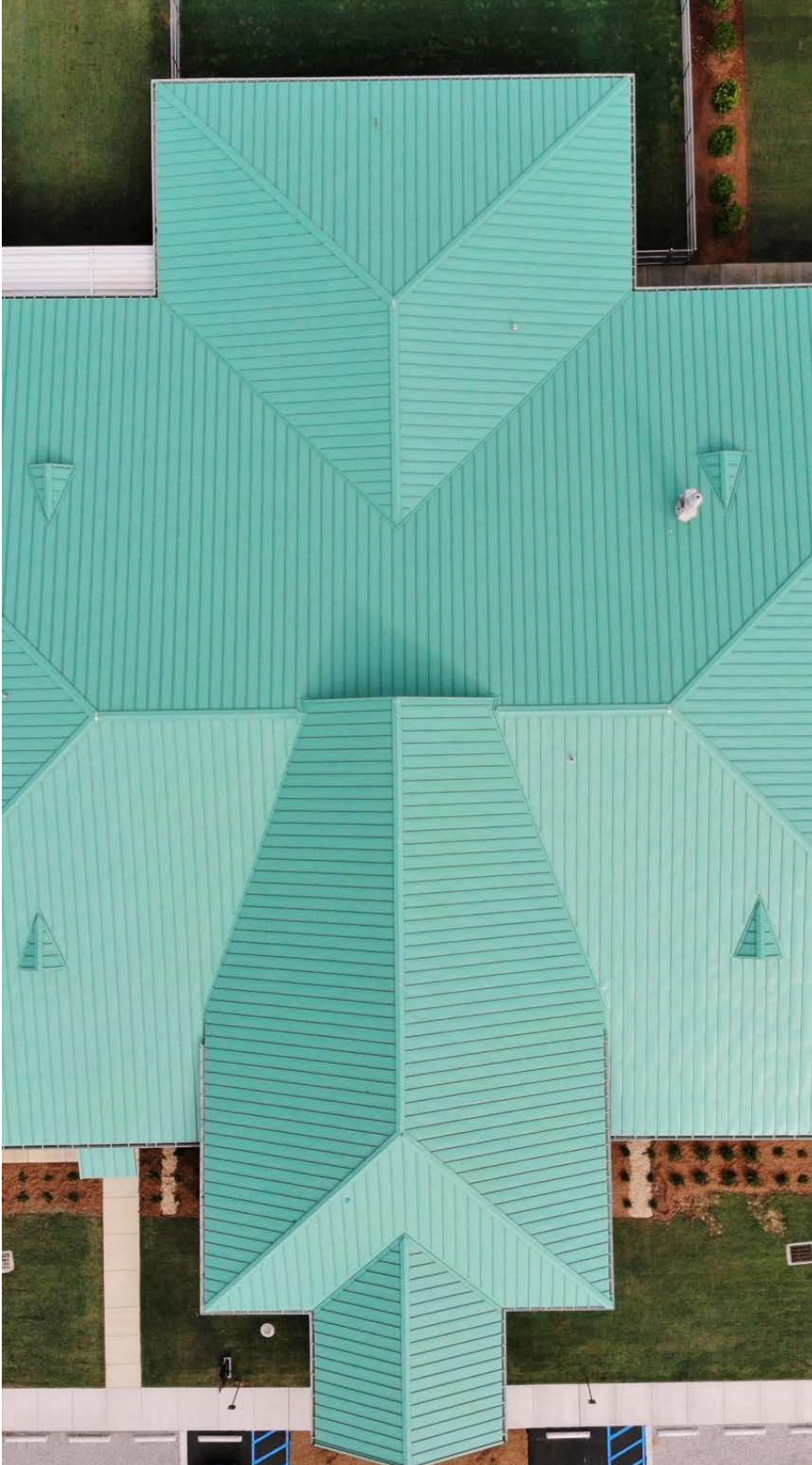
ACI Building Systems, a subsidiary of Associated Steel Group, has been a leading manufacturer of custom-engineered metal buildings, roofing systems, and components for the non-residential construction industry since 1991. Based in Batesville, MS, and with affiliated offices across five states, we are an integrated manufacturer specializing in complex, highly engineered low-rise metal buildings for various applications, including the architectural, commercial, and industrial markets.

At ACI, we take pride in our ability to meet the demanding requirements of our customers and their construction schedules. Operating from our spacious 270,000 sq. ft. facility in Batesville, MS, comprised of a Building Division and a Roofing Division, we ensure efficient service and nationwide coverage. Our organization is bolstered by a professional network of experienced, reliable, and dedicated employees, all working towards a common goal. With a track record of successfully delivering thousands of projects, ACI Building Systems stands for teamwork, experience, and a steadfast commitment to exceeding customer expectations. We have built our reputation on consistently achieving exceptional results.

WHEN YOU CHOOSE ACI FOR YOUR BUILDING NEEDS, YOU'RE CHOOSING A PARTNER DEDICATED TO COLLABORATION AND THE SHARED GOAL OF BRINGING YOUR VISION TO LIFE. LET'S BUILD SOMETHING REMARKABLE TOGETHER.

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WHAT WE BUILD



Fossett Paving Company – Collierville, TN



AGRICULTURE

ARCHITECTURAL LY DESIGNED, ECONOMICAL LY MINDED

Located on rural land in an industrial zone with no infrastructure, Fossett Paving Company looked at the site of its new headquarters as more of an opportunity and less of a challenge. Comprised of an office building, shop building, fuel station, and an equipment yard, the design provided an elegant, daylit office for employees while delivering an elevated standard for industrial buildings.

Bringing this special project to life fell in part to ACI Building Systems. The Batesville, MS, company delivered more than 13,000 square feet and 60 tons of StratoShield Roof Panels and concealed-fastener panels to complete the award-winning design.

The use of a singular design language among the structures provides cohesiveness and a pattern for expansion, while a unique entry point with glass and glowing light fixtures entices passersby. Every space has access to natural light, and on the exterior, the openings help create rhythm and give depth to the façade. Painting the exposed interior structure black and using other high-end materials elevate the entire design.



Keys to the World – Lakeland, FL

COMMERCIAL

OFFICE TO MULTI-UNIT

Keys to the World provides corporate aircraft hangar leasing at Lakeland Linder International Airport in Lakeland, FL. ACI designed and supplied the luxury hangar that features a bi-parting hangar door, StratoShield standing-seam roof panels, and a special downspout collector system in an elegant, eclectic design.



COMMUNITY

MUNICIPALITIES TO HOUSES OF WORSHIP

The Ford Ice Center is a public-private collaboration between local government, the Nashville Predators, and the people of Nashville. The \$15 million, 90,000-square-foot facility includes two NHL-sized ice rinks, a yoga/ballet studio, four party/meeting rooms, 2,500 square feet of off-ice training space, concessions, and a Perani's Hockey World pro shop.



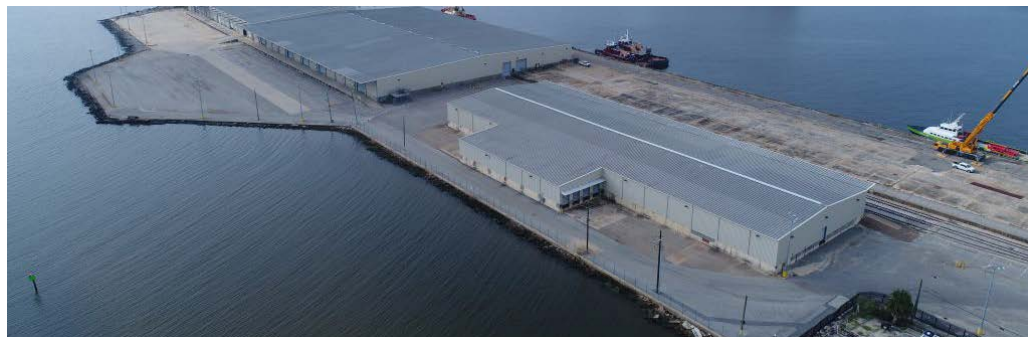
Ford Ice Center – Antioch, TN



INDUSTRIAL

UNIT STORAGE TO DISTRIBUTION CENTERS

Banana giant Chiquita returned to Gulfport to find 110,000 square feet of new warehouse space and a 20,000-square-foot expansion to its on-dock temperature-controlled facility. Ripening and distribution facilities are in the new West Pier.



West Pier, Port of Gulfport – Gulfport, MS



MINI-STORAGE

THE ACI DIFFERENCE

Our talented team is proficient at designing and building indoor and outdoor mini-storage facilities, also known as self-storage facilities, of all shapes and sizes to meet a variety of business objectives. With decades of experience, our dedicated estimating, design, and technical team will ensure your mini-warehouse project's needs are met.

ACI also has specialized building and roofing divisions to support additional construction needs. Our team is vertically integrated to handle all aspects of your project in-house, from start to finish. You will become a part of the ACI team and will work hand-in-hand with us throughout the process.



ACI Building Systems is a premier mini-storage specialist



ROOFING

BUILT TO STAND THE TEST OF TIME

The Auburn University Educational Complex is a 24,000-square-foot veterinary, aviation, research, and administration facility in Gulf Shores. The centerpiece of the complex will be the Auburn Veterinary Specialists–Gulf Shores veterinary referral center, which occupies 12,000 square feet. The building also houses the Auburn University Aviation Center, administrative space for Auburn’s Office of the Vice President for Research, and meeting and office space.



Auburn University Educational Complex – Gulf Shores, AL



COMPONENTS



BUILDING & ROOFING PANELS

FW-120 PANEL

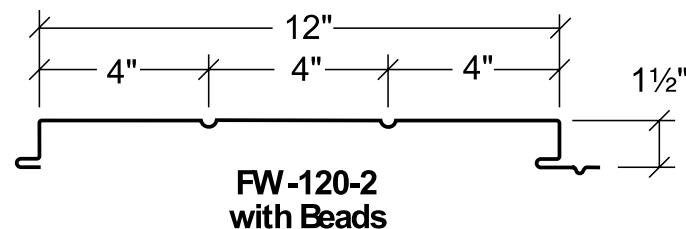
The FW-120 panel is a concealed-fastener wall and liner panel that provides a flat appearance. FW-120 is commonly used in architectural, commercial, and industrial markets. The heavy-gauge offering provides large spanning capabilities, particularly in composite wall applications.

FEATURES & BENEFITS

- FW-120 is available in a flat profile with two beads, which are recommended to minimize the appearance of oil canning, or with no beads.
- The FW-120 panel has been tested by a certified independent laboratory in accordance with ASTM test procedures for Air Infiltration and Water Penetration at the sidelap. Test results show no air leakage at 1.57 PSF and no water penetration at 6.24 PSF differential pressure.
- FW-120 carries Florida product approval.

SPECIFICATIONS

- APPLICATIONS: Wall
- COVERAGE WIDTHS: 12"
- PANEL ATTACHMENT: Concealed Fastening System
- GAUGES: 24 (standard); 22 (optional)
- FINISHES: Smooth (standard); Embossed (optional)
- COATINGS: Signature 200 (standard); Signature 300 (optional)



*Oil canning, a slight waviness inherent in all light-gauge metal, may exist in the FW-120 panel. This minor waviness does not affect the finish or structural integrity of the panel and is therefore not a cause for rejection.

CATEGORY	CHARACTERISTIC	TEST METHOD	PURPOSE	RESULT
Environmental	Air leakage	ASTM E283	Determines the air leakage rates of exterior windows, curtain walls, and doors under specified air pressure differences across the specimen	0.000 cfm/ft ² at 6.24 psf static pressure 0.113 cfm/ft ² at 20.00 psf static pressure
	Water Penetration	ASTM E331	Determines the resistance of exterior windows, curtain walls, skylights, and doors to water penetration when water is applied under uniform static air pressure difference	No uncontrolled water penetration through the panel joints at a static pressure of 13.24 psf
Structural	Negative Wind Loads	ASTM E1592	Provides a standard procedure to evaluate or confirm structural performance under uniform static air pressure difference	See Load Chart Section
	Positive Wind Load	AISI S100	North American Specification for the Design of Cold-Formed-Steel Structural Members	See Section Properties and Allowable Load Table Section
Roof Listings	Roof Performance-Florida Approval	ASTM E1592	Florida product approval is the approval of products and systems, which comprise the building envelope and structural frame, for compliance with the structural requirements of the Florida Building Code	Application Pending

SECTION PROPERTIES 12" WIDE, 50 KSI FW-120 WALL PANEL										
Gauge	Thickness In.	Weight PSF	Allowable Shear	Moment of Inertia	Top in Compression (Positive Bending)			Bottom in Compression (Negative Bending)		
			V _a kips/ft	I _x in ⁴ /ft	I _{xe} in ⁴ /ft	S _{xe} in ³ /ft	M ₃ in.kips/ft	I _{xe} in ⁴ /ft	S _{xe} in ³ /ft	M ₃ in.kips/ft
24	0.0230	1.342	1.00	0.1135	0.0483	0.0566	1.416	0.1070	0.0884	2.646
22	0.0285	1.662	1.22	0.1410	0.0648	0.0786	2.354	0.1350	0.1116	3.343

- Panel coverage width is 12"
- Section properties and allowables are calculated in accordance with the North American Specification for the Design of Cold-Formed Steel Structural Members (2012 and 2016 Editions)
- I_x is the full moment of inertia; I_{xe} +/- and S_{xe} +/- are the effective moment of inertia and section modulus, respectively; M_a is the allowable bending moment; and V_a is the allowable shear.
- All values are for one foot of panel width.
- Minimum deliverable bare steel thickness should not be less than 0.95 of the design thickness.

PREPARATORY REQUIREMENTS: REFERENCE FW-120 INSTALLATION GUIDE

12" WIDE, 50 KSI FW-120 WALL PANEL										
Allowable Inward Loads (lb/ft)										
Gauge	Span Condition		Span (ft)							
			2	2.5	3	3.5	4	4.5	5	6
24	SS	Stress	236.0	151.0	104.9	77.1	59.0	46.6		26.2
		L/180	527.7	270.2	156.4	98.5	66.0	46.3		19.5
	DS	Stress	385.8	258.0	183.9	137.3	105.4	83.2		46.8
		L/180	1270.1	650.3	376.3	237.0	158.8	111.5		47.0
	TS	Stress	382.1	244.6	169.8	124.8	95.5	75.5		42.5
		L/180	995.9	509.9	295.1	185.8	124.5	87.4		36.9
22	SS	Stress	392.3	251.1	174.4	128.1	98.1	77.5		43.6
		L/180	708.0	362.5	209.8	132.1	88.5	62.2		26.2
	DS	Stress	484.2	324.5	231.5	173.0	134.0	106.7		60.8
		L/180	1704.0	872.5	504.9	318.0	213.0	149.6	109.1	63.1
	TS	Stress	546.3	369.8	265.5	199.2	154.7	123.5	100.7	70.6
		L/180	1336.1	684.1	395.9	249.3	167.0	117.3	85.5	49.5

12" WIDE, 50 KSI FW-120 WALL PANEL										
Allowable Inward Loads (lb/ft)										
Gauge	Span Condition		Span (ft)							
			2	2.5	3	3.5	4	4.5	5	6
24	SS	Stress	441.0	282.2	196.0	144.0	110.3	87.1	70.6	49.0
		L/180	1169.1	598.6	346.4	218.1	146.1	102.6	74.8	43.3
	DS	Stress	226.3	147.0	102.9	76.0	58.4	46.2	37.5	26.1
		L/180	2813.7	1440.6	833.7	525.0	351.7	247.0	180.1	104.2
	TS	Stress	261.1	170.2	119.5	88.3	67.9	53.8	43.7	30.4
		L/180	2206.1	1129.5	653.7	411.6	275.8	193.7	141.2	81.7

SNAPLOK

The 24-gauge SnapLok standing-seam roof panel is a flexible product designed to meet architectural design requirements. The SnapLok panel offers ease of installation that does not require mechanical seaming. The SnapLok panel is designed to be used over solid substrate or open framing. SnapLok panels are available in 16" and 18" widths. Priced to compete, proven to perform.

PANEL

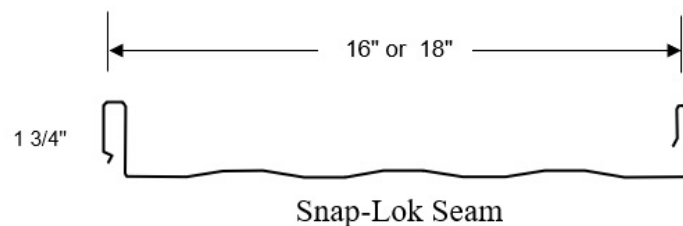
The panel will be fabricated from steel coated with Galvalume® and factory-applied paint. The Galvalume®-coated, painted sheet will provide a long-lasting weathering membrane. Galvalume® has proven weather resistance in excess of 20 years.

The steel panel is designed to resist wind uplift without the complexity of additional substrates as required by many other roofing materials. The ultimate performance of the SnapLok panel is determined by the perimeter seals and panel attachment.

PANEL AND FLASHING MATERIALS

The roof panels will be of 24- or 22-gauge steel, 50,000 psi minimum yield strength (ASTM A792-06a, Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

The flashing will be 24- or 26-gauge steel with a minimum yield strength of 50,000 psi (ASTM A792, SS Grade 50, Class 1), coated with AZ50 aluminum/zinc alloy.



ATTACHMENT

The SnapLok panel is attached directly to open framing or solid substrate with pancake-head, self-drilling fasteners that secure the clip to the roof structure.

TEST DATA

The SnapLok panel has been tested to meet the requirements of ASTM E1592 and UL 580 Class 90.

WARRANTY

Twenty-year material and weather-tightness warranties are available.

PRODUCT NOTES

Oil-canning, a slight waviness inherent in all light-gauge metal, may exist in the SnapLok panel. This minor waviness does not affect the finish or structural integrity of the panel and is therefore not a cause for rejection.

UL Construction Numbers: 254, 255, 261, 303, 342, 343, 414, 436, 445, 446, 447, 448, 486, 508A, 543, 544

Galvalume® is an internationally recognized trademark of BIEC International, Inc., and its licensed producers.

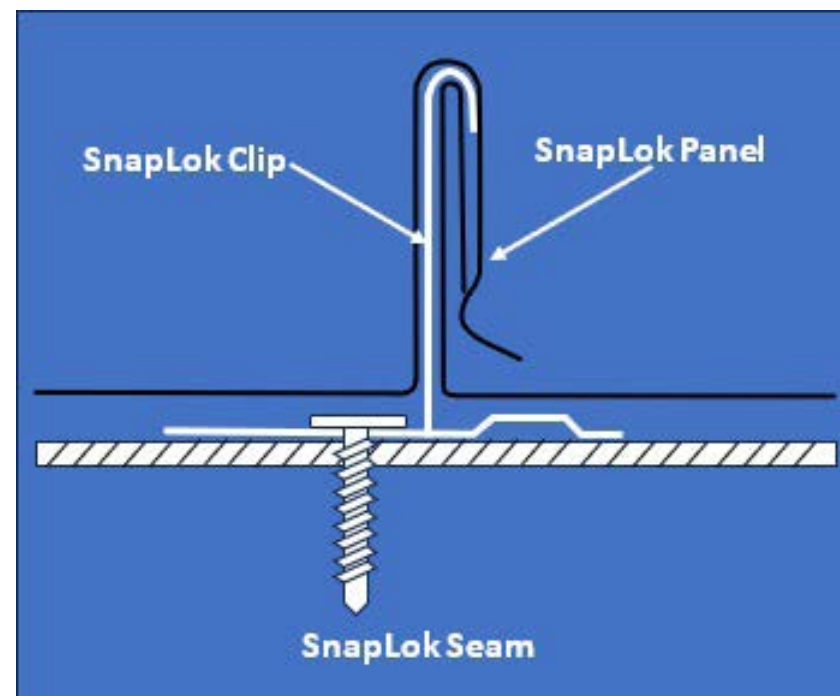
LOAD SPAN TABLES AND SECTION PROPERTIES SNAPLOK SECTION PROPERTIES

GAUGE	PANEL THICKNESS		WT (PSF)		YIELD STRESS (KSI)
24	0.0227		1.22		50
Panel Top in Compression			Panel Top in Compression		
Lxe (in4/ft)	Sxe (in3/ft)	Maxo (In.Kip/sq.ft)	Lxe (in4/ft)	Sxe (in3/ft)	Maxo (In.Kip/sq.ft)
0.0767	0.0507	1.5187	0.0340	0.0350	1.0480

- All calculations for SnapLok panels are in accordance with the 2007 edition of the North American Specification for Design of Cold-Formed Members.
- Lxe is for deflection determination.
- Sxe is for bending determination.
- Maxo is the allowable bending moment.
- All values are for one foot of panel width.
- SnapLok Span Load Tables - All loads in lbs per sq.ft.
- 24 Gauge 18" Panel ASTM A792 Grade 50, Class 1

24 GAUGE 18" PANEL ASTM A792 GRADE 50, CLASS 1		
Span (ft.)	E1592 Load	Design Load
1.0	110.00	55.00
1.5		52.50
2.0		50.00
2.5		47.50
3.0		45.00
3.5		42.50
4.0	80.00	40.00

- The above loads were derived from uplift tests done in accordance with ASTM E1592-01
- All values are interpolated from tests performed at 1'-0" and 4'-0"
- Test values are highlighted.
- The test values were taken from test reports #72-0190T-05A and #72-0190T-05B by Force Engineering and Testing.
- Design loads are computed using a safety factor of 2.00 per the AISI Specification.



GAUGE	SPAN CONDITION	SPAN (FT)			
		2 ft.	3 ft.	4 ft.	5 ft.
24	Single Live Load	258 psf	114 psf	65 psf	41 psf
	Double Live Load	179 psf	79 psf	49 psf	28 psf
	Triple Live Load	224 psf	99 psf	56 psf	36 psf

- Allowable loads are based on uniform span lengths.
- Allowable loads are limited by bending, shear, or combined shear and bending.
- The above loads consider a maximum deflection ratio of L/180.
- The weight of the panel has not been deducted from the allowable loads listed.
- The table above is not for use in designing panels to resist wind uplift.
- See wind load tables for allowable wind uplift.
- Oil-canning shall not be a cause for rejection.

PBM PANEL

The PBM panel is designed for roof, exterior wall, soffit, and liner applications in architectural, commercial, or industrial settings. The panel utilizes through-panel fastening and sidelap installation. The panel has (6) $\frac{3}{4}$ " ribs spaced at 6" o.c., with a total coverage of 36". Panels are fabricated from 22-, 24-, or 26-gauge steel. The Galvalume®-coated or painted sheet will provide a long-lasting weathering membrane and has proven weather resistance in excess of 20 years.

APPLICATION

Roof covering as well as interior and exterior wall covering for new projects or retrofit construction.

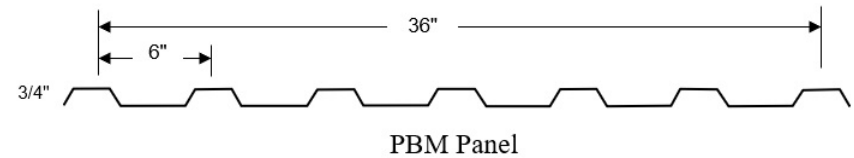
PANEL AND FLASHING MATERIALS

PBM panels are made of 26-gauge steel (80,000 psi) and 22- and 24-gauge steel with a minimum yield strength of 50,000 psi (ASTM A792-06a, Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

The flashing and trim will be 24- or 26-gauge steel with a minimum yield strength of 50,000 psi (ASTM A792, SS Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

SEALANTS

All sealants are 100% solids, asbestos-free butyl tape sealants made from a highly rubbery, tacky, reinforced compound designed for sealing metal lap joints. The application temperature range for the sealant is -5° F to 120° F and service temperatures from -40° F to 200° F.



MAINTENANCE

Routine maintenance is required to maximize the life expectancy of the panel. Routine inspections of the roof, walls, flashings, gutters, and fasteners ensure that the investment will maximize performance of all new products.

FASTENERS

PBM panels may be attached to secondary framing (purlins or girts) using #12 x 1 $\frac{1}{4}$ " hex head, self-drilling, steel screws with neoprene washers. Fasteners are available for use with up to 8" of blanket insulation.

PBM stitch screws, screws at side laps, are $\frac{1}{4}$ " – 14 x 7/8" self-drilling screws with neoprene washers.

PRODUCT NOTES

Oil-canning, a slight waviness inherent in light-gauge metal, may exist in this panel. This minor waviness does not affect the finish or structural integrity of the panel and is therefore not a cause for rejection.

WARRANTY

Up to 20-year material and paint finish warranty information available upon request. No weather-tightness warranty is available.

UL Construction Number: #39

Galvalume® is an internationally recognized trademark of BIEC International, Inc., and its licensed producers.

SECTION PROPERTIES: PBM PANEL

GAUGE	YIELD STRESS (KSI)	WT. (PSF)	STEEL THICKNESS (IN.)	TOTAL THICKNESS (IN.)			
26	50	0.96	0.180	0.0196			
24	50	1.18	0.0227	0.0243			
22	50	1.39	0.0272	0.0288			
Ga.	Panel Top in Compression (Positive Bending)			Panel Bottom in Compression (Negative Bending)			
	Ix (in 4/ft)	Sx (in 3/ft)	Maxo (in.kip s/ft)	Ix (in 4/ft)	Sx (in 3/ft)	Maxo (in.kip s/ft)	Fb (ksi)
26	0.024	0.043	1.29	0.016	0.038	1.14	30
24	0.032	0.058	1.74	0.022	0.054	1.62	30
22	0.040	0.073	2.19	0.030	0.067	2.01	30

PBM MAXIMUM TOTAL UNIFORM LOADS IN PSF

Gauge	Span Type	Span Ft.							
		3.0	3.5	4.0	4.5	5.0	6.0	7.0	7.5
26	1	95 / -84	70 / -62	53 / -47	42 / -37	34 / -30	24 / -20	18 / -12	15 / -10
	2	83 / -74	62 / -63	47 / -53	37 / -42	30 / -34	21 / -24	15 / -18	13 / -15
	3	104 / -84	77 / -72	59 / -63	47 / -53	38 / -43	26 / -30	19 / -22	17 / -19
	4	97 / -80	72 / -69	55 / -60	44 / -49	35 / -40	25 / -28	18 / -20	16 / -18

Gauge	Span Type	Span Ft.							
		3.0	3.5	4.0	4.5	5.0	6.0	7.0	7.5
24	1	128 / -119	94 / -88	72 / -67	57 / -53	46 / -43	32 / -27	24 / -17	20 / -14
	2	118 / -93	87 / -80	67 / -70	53 / -57	43 / -46	30 / -32	22 / -24	19 / -21
	3	147 / -106	109 / -91	83 / -79	66 / -71	54 / -57	37 / -40	27 / -29	24 / -26
	4	137 / -102	101 / -87	78 / -76	62 / -66	50 / -54	35 / -37	26 / -28	22 / -24

Gauge	Span Type	Span Ft.							
		3.0	3.5	4.0	4.5	5.0	6.0	7.0	7.5
22	1	160 / -147	118 / -109	91 / -83	72 / -66	58 / -53	40 / -36	30 / -23	25 / -19
	2	147 / -111	108 / -96	83 / -84	66 / -72	53 / -58	37 / -40	27 / -30	24 / -26
	3	182 / -127	134 / -109	103 / -95	82 / -84	66 / -72	46 / -50	34 / -37	30 / -32
	4	170 / -122	126 / -104	97 / -91	77 / -81	62 / -68	43 / -47	32 / -35	28 / -30

- Section properties have been calculated in accordance with Supplement 2004 to the North American Specification, 2001 Edition, for the Design of Cold-Formed Steel Structural Members.
- Steel panels have a protective coating of either aluminum-zinc alloy or G-90 galvanizing.
- The base steel thickness was used in determining section properties.
- The minimum yield strength of 22- and 24-gauge steel is 50,000 psi. The minimum yield strength of 26-gauge steel is 80,000 psi.
- The deflection loads were calculated from a deflection limit of Span/60 for structural roof panels.
- The loads shown do not include allowance for the panel weight.
- Positive load is applied inward toward the panel supports and is applied to the outer surface of the panel cross-section. Negative load is applied in the opposite direction.

PBR PANEL

The PBR panel is designed for roof, exterior wall, soffit, and liner applications in architectural, commercial, or industrial settings. The panel utilizes through-panel fastening and sidelap installation. The panel has 1 1/4" major ribs spaced at 12" o.c., with a total coverage of 36". Panels are fabricated from 22-, 24-, or 26-gauge steel. Galvalume®-coated or painted sheet will provide a long-lasting weathering membrane and has proven weather resistance in excess of 20 years.

APPLICATION

Roof covering as well as interior and exterior wall covering for new projects or retrofit construction.

PANEL AND FLASHING MATERIALS

The PBR panel is formed of 50,000 psi minimum yield strength. PBR panels are made of 26-gauge steel (80,000 psi) and of 22- and 24-gauge steel, 50,000 psi minimum yield strength (ASTM A792-06a, Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

The flashing and trim will be 24- or 26-gauge steel with a minimum yield strength of 50,000 psi (ASTM A792, SS Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

FASTENERS

PBR panels may be attached to secondary framing (purlins or girts) using self-drilling steel screws, #12 x 1 1/4" hex head with neoprene washer. PBR panels attaching to wood decking use #10 x 1 1/2" hex head, wood grip with washers. Fasteners are available for use with up to 8" of blanket insulation. PBR stitch screws, screws at side laps, are 1/4" – 14 x 7/8" self-drilling screws with neoprene washers.

SEALANTS

All sealants are 100% solids, asbestos-free butyl tape sealants made from a highly rubbery, tacky, reinforced compound designed for sealing metal lap joints. The application temperature range for the sealant is -5° F to 120° F and service temperatures from -40° F to 200° F.

FINISHES

PBR panels are available in ACI 2000 (Advanced Exterior Finishes) and ACI 3000 (Premium 70% PVDF Coating System) colors. All ACI 2000 and ACI 3000 KYNAR finishes are provided by Sherwin-Williams® and come with extended finish warranties. Upon request, Energy Star, LEED, and material safety documentation are available.

MAINTENANCE

Routine maintenance is required to maximize the life expectancy of the panel. Routine inspections of the roof, walls, flashings, gutters, and fasteners ensure that the investment will maximize performance of all new products.

TEST DATA

The PBR panel has been tested to ASTM E1592.

WARRANTY

Up to 20-year material and paint finish warranty information available upon request. No weather-tightness warranty is available.

PRODUCT NOTES

Oil-canning, a slight waviness inherent in light-gauge metal, may exist in this panel. This minor waviness does not affect the finish or structural integrity of the panel and is therefore not a cause for rejection.

UL Construction Numbers: 30, 79, 161, 167

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GAUGE	YIELD STRESS (KSI)	WT. (PSF)	STEEL THICKNESS (IN.)	TOTAL THICKNESS (IN.)		
26	80	0.88	0.0180	0.0196		
24	50	1.11	0.0227	0.0243		
22	50	1.32	0.0272	0.0288		
Ga.	Panel Top in Compression (Positive Bending)			Panel Bottom in Compression (Negative Bending)		
	lx (in 4/ft)	Sx (in 3/ft)	Maxo (in.kip s/ft)	lx (in 4/ft)	Sx (in 3/ft)	Maxo (in.kip s/ft)
26	0.0410	0.0409	1.469	0.0343	0.0490	1.761
24	0.0603	0.0624	1.870	0.0473	0.0632	1.893
22	0.0766	0.0823	2.460	0.0600	0.0764	2.290

PBR MAXIMUM TOTAL UNIFORM LOADS IN PSF

Gauge	Span Type	Span Ft.							
		3.0	3.5	4.0	4.5	5.0	6.0	7.0	7.5
26	1	111/-112	81/-70	51/-47	38/-33	28/-24	16/-14	10/-8.8	8.4/-7.2
	2	117/-68	88/-58	69/-51	55/-45	45/-38	31/-27	23/-20	20/-17
	3	141/-77	107/-66	84/-58	67/-51	53/-45	30/-26	10/-16	15/-13

Gauge	Span Type	Span Ft.							
		3.0	3.5	4.0	4.5	5.0	6.0	7.0	7.5
24	1	135/-140	99/-97	76/-65	56/-45	41/-33	24/-19	15/-12	12/-9.9
	2	134/-68	99/-58	76/-51	61/-45	49/-41	34/-33	25/-24	22/-21
	3	164/-77	122/-66	95/-58	75/-51	61/-46	43/-36	28/-22	23/-18

Gauge	Span Type	Span Ft.							
		3.0	3.5	4.0	4.5	5.0	6.0	7.0	7.5
22	1	172/-161	126/-116	97/-77	70/-54	51/-39	29/-22	18/-14	15/-11
	2	156/-68	116/-58	89/-51	70/-45	57/-41	40/-34	29/-29	25/-27
	3	193/-77	143/-66	110/-58	88/-51	71/-46	50/-38	35/-27	28/-22

- Section properties have been calculated in accordance with Supplement 2004 to the North American Specification, 2001 Edition, for the Design of Cold-Formed Steel Structural Members.
- Steel panels have a protective coating of either aluminum-zinc alloy or G-90 galvanizing.
- The base steel thickness was used in determining section properties.
- The minimum yield strength of 22- and 24-gauge steel is 50,000 psi. The minimum yield strength of 26-gauge steel is 80,000 psi.
- The deflection loads were calculated from a deflection limit of Span/180 for structural roof panels.
- The loads shown do not include allowance for the panel weight.
- Positive load is applied inward toward the panel supports and is applied to the outer surface of the panel cross-section. Negative load is applied in the opposite direction.

STRATOSHIELD

The StratoShield Roof System has been designed for use in architectural or functional applications where both appearance and weather resistance of the roof are primary concerns. Many standing seam roof systems have similar appearance, but have major differences in their performance. The StratoShield Roof System has many advantages over most other roof systems and, when properly installed, will offer excellent weather resistance and be practically maintenance-free. The StratoShield Roof System is adaptable for use on new construction and as a replacement roof for existing buildings where weather resistance is the most important design consideration.

PANEL

The panel will be fabricated from steel which is coated with Galvalume, and optional factory-applied paint. Galvalume-coated steel sheet will provide a long-lasting weathering membrane. Galvalume coating has a proven weather resistance in excess of 20 years. The steel sheet is impervious to moisture and will resist falling objects and roof traffic better than other known roof membranes commonly used. The steel panel profiles are designed to resist live load and wind uplift without the complexity and cost of additional substrate as required on most other roofing systems. The ultimate performance of a Galvalume-coated steel panel is determined by effectiveness of the design of the steel panel, perimeter seals, and panel attachment methods.

PANEL AND FLASHING MATERIALS

The roof panels will be of 24 ga. or 22 ga. steel, 50,000 psi minimum yield strength (ASTM A792-06a, Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

The flashing and trim will be a 24 or 26 ga. steel, 50,000 psi minimum yield strength (ASTM A792, SS Grade 50, Class I), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

PANEL CLIPS

Panel clips fasten the roof panels to the structure. The clips are designed to allow the panel to float over the secondary structural members. Floating clips will have a tab and a base with a sliding interlock allowing the roof 1-1/2" of expansion and 1-1/2" of contraction movement. The floating clip tab will move in the sliding interlock of the galvanized steel clip base. The clip base will be protected from corrosion by galvanized coating that has similar weather resistance to that of the panel coating. Panel clips will be attached to 16 gauge minimum, cold-formed, secondary structural members with two 1/4 in. x 14 x 1 1/4 in. self-drilling screws. Fasteners required for other types of secondary structural members will be determined by building applications or the substrate used on the building.

SEAM

The StratoShield panels have a side lap that can be formed into two types of seams:

- TripleLok™ - The TripleLok seam is formed continuously by folding the adjacent panels' sides over each other to interlock the two panels so they form a watertight seal that will resist separation even if the panels are severely deformed. The TripleLok seam is partially formed in the factory and completed in the field with a mechanical seamer. The TripleLok seam will resist greater uplift forces than any known seam.
- QuadLok™ - The "QuadLok" seam, commonly referred to as the "Pittsburgh 360," is used in high wind load areas and can reduce the need for additional sub-framing due to increased uplift forces at eaves and rakes.

SEALANTS

The seam sealant will be a non-drying, non-hardening, non-oxidizing sealant specifically formulated for factory-sealing standing seam roof panels. Sealant for the eave, end splice, ridge flashing, and rake trim will be non-drying, non-hardening tape sealant specifically formulated for field application at temperatures of 20° F to 120° F. Service temperature of both sealants will be -60° F to 180° F.

CLOSURES

The end dam to be used at the ridge and high side of a single-slope roof is a 22 ga. die-formed steel closure with factory-punched holes. The end dam seals the outside of the panel at the ridge or high edge of a single-slope roof panel to the ridge or high edge of roof flashing. The seal is developed using gasket techniques similar to those used at the endlap. The tape sealant is sandwiched between the roof panel, which is fully supported by a rigid heavy-gauge backup channel and the flange of the end dam. The fasteners placed in the factory-punched holes clamp the backup channel and end dam together. The clamping force uniformly compresses the sealant between the panel and the end dam causing the sealant to be extruded with over one ton of force. The extruded sealant provides a seal that will resist wind-blown water.

FASTENERS

The StratoShield Roof System does not have exposed through-fasteners that penetrate the roof membrane over the building envelope except at panel endlaps on roof runs that are longer than the length a panel can be shipped. Endlap fasteners: Only four (4) endlap fasteners will be required to seal the panel endlaps. Endlap fasteners will be oversized #17 fasteners to minimize potential for fastener strip-out. All exposed fasteners are self-drilling and will not require special tools other than industry standard screw guns. Fasteners will have metal-backed neoprene sealing washers with aluminum/zinc caps.

TESTING DATA

The StratoShield panel outperforms all known existing single-skin trapezoidal roof systems in three of the leading tests for wind uplift resistance. These tests are UL 580 Class 90, Factory Mutual 4471, and ASTM E1592. The StratoShield panel has also been tested in accordance with ASTM E1680, Rate of Air Leakage Through Exterior Metal Roof Panel Systems; and ASTM E1645, Water Penetration of Metal Roof Panel Systems.

PRODUCT NOTES

“Oil-canning”, a slight waviness inherent in light-gauge metal may exist in this panel. This minor waviness does not affect the finish or structural integrity of the panel and is therefore not a cause for rejection.

WARRANTY

Twenty-year material and weather-tightness warranties are available.

UL Construction Numbers: 552, 552A, 552B

Galvalume® is an internationally recognized trademark of BIEC International, Inc., and its licensed producers.

LOAD SPAN TABLES AND SECTION PROPERTIES: STRATOSHIELD PANEL PROFILE

SECTION PROPERTIES: 24" WIDE, 50 KSI STRATOSHIELD PANEL						
GAUGE	PANEL THICKNESS (IN.)	Wt. (PSF)	YIELD STRESS (KSI)	ALLOWABLE SHEAR (Kips/ft)		
24	0.0221	1.133	50	0.97		
22	0.0275	1.406	50	1.34		
Ga.	Panel Top in Compression (Positive Bending)			Panel Bottom in Compression (Negative Bending)		
	I_x (in ⁴ /ft)	S_x (in ³ /ft)	M_a (in.-kip/ft)	I_x (in ⁴ /ft)	S_x (in ³ /ft)	M_a (in.-kip/ft)
24	0.3620	0.1517	4.541	0.1520	0.1066	2.310
22	0.4475	0.1879	5.626	0.1965	0.1336	3.088

NOTES ON SECTION PROPERTIES

- Section properties and allowables are calculated in accordance with the North American Specification for the Design of Cold-Formed Steel Structural Members, 2016 Edition and 2018 Supplement.
- $I_{+/-}$ is for deflection determination; $S_{+/-}$ is for bending determination; and M_a is allowable bending moment.
- M_a is allowable bending moment, and V_a is allowable shear.
- All values are for one foot of panel width.

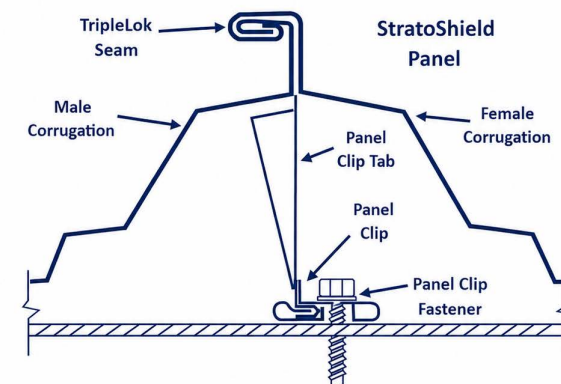
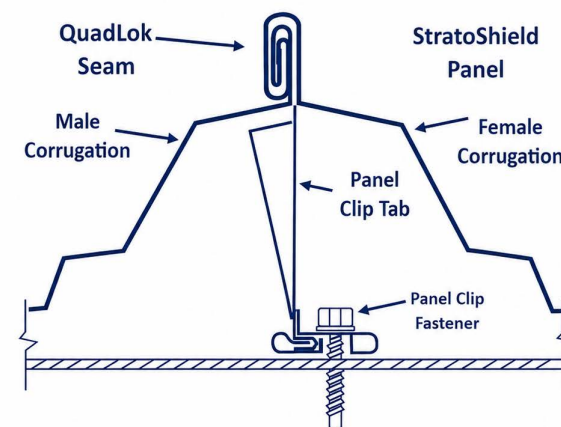
WEB CRIPPLING

24 GAUGE

- Allowable intermediate bearing at 2.5 in.: 0.613 kips/ft
- Allowable end bearing at 2.5 in.: 0.393 kips/ft

22 GAUGE

- Allowable intermediate bearing at 2.5 in.: 0.907 kips/ft
- Allowable end bearing at 2.5 in.: 0.577 kips/ft



STRATOSHIELD ALLOWABLE GRAVITY LOADS - All loads in lbs per sq. ft.

A. 24 GAUGE MATERIAL (FY = 50 KSI)

GAUGE	SPAN CONDITION		SPAN (FT)							
			2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0
24	SS	Stress	756.8	484.3	336.3	247.1	189.2	149.5	121.1	84.1
		L/180	3955.2	2025.1	1171.9	738.0	494.4	347.2	253.1	146.5
	DS	Stress	345.1	229.1	162.5	121.0	93.4	74.3	60.4	42.2
		L/180	9519.4	4873.9	2820.6	1776.2	1189.9	835.7	609.2	352.6
	TS	Stress	392.0	262.4	187.1	139.7	108.2	86.1	70.1	49.1
		L/180	7463.7	3821.4	2211.5	1392.7	933.0	655.3	477.7	276.4

B. 22 GAUGE MATERIAL (FY = 50 KSI)

GAUGE	SPAN CONDITION		SPAN (FT)							
			2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0
22	SS	Stress	937.6	600.1	416.7	306.1	234.4	185.2	150.0	104.2
		L/180	4889.4	2503.3	1448.7	912.3	611.2	429.2	312.9	181.1
	DS	Stress	463.7	307.4	217.8	162.0	125.1	99.4	80.8	56.5
		L/180	11767.7	6025.1	3486.7	2195.7	1471.0	1033.1	753.1	435.8
	TS	Stress	527.3	352.3	250.9	187.2	144.9	115.3	93.9	65.7
		L/180	9226.6	4724.0	2733.8	1721.6	1153.3	810.0	590.5	341.7

NOTES ON GRAVITY LOADS

- Allowable load based on stress is the smallest load due to bending, shear and combined bending and shear.
- Allowable load based on deflection limit cannot exceed allowable load based on stress.
- Allowable loads for deflection are based on deflection limitation of span/180.
- For roof panels, self weight of the panel has to be deducted from the allowable inward load to arrive at the actual 'live load' carrying capacity of the panel.
- SS = Simple span, DS = Double Span and TS = Three or more spans

STRATOSHIELD ALLOWABLE WIND LIFT LOADS

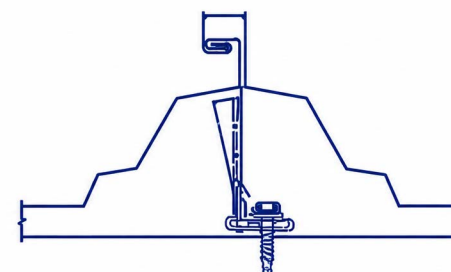
All loads in lbs per sq. ft.

A. 24 Gauge Material (Fy = 50 ksi) with MPS 600 Series or FC600 Series Clip

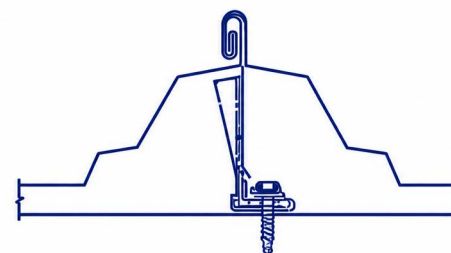
TRIPLELOK SEAM			
Span	1592 Test Ultimate Load	1592 Design Load	COE Design Load
2.0	145.6	85.5	88.2
2.5		78.4	80.8
3.0		71.3	73.6
3.5		61.1	63.0
4.0		53.5	55.2
4.5		47.6	49.1
5.0	72.8	42.8	44.1

QUADLOK SEAM			
Span	1592 Test Ultimate Load	1592 Design Load	COE Design Load
2.0	185.5	108.8	112.4
2.5		99.7	103.0
3.0		89.8	92.8
3.5		77.0	79.6
4.0		67.4	69.6
4.5		59.9	61.9
5.0	91.9	53.9	55.7

- The above tabulated loads are generated from certified ASTM E-1592 testing.
- Intermediate design loads are interpolated from ultimate test loads.
- Design loads contain a safety factor calculated per AISI.
- COE design load contains a 1.65 safety factor per COE 07416 Specification.
- These load capacities are for the panel itself. Frames, purlins, clips, fasteners, and all supports must be designed to resist all loads imposed by the panel.
- Allowable wind uplift loads have not been increased by 33% as allowed by some codes when wind load controls.
- This material is subject to change without notice. Contact ACI Building Systems, Inc. for most current values.



TripleLok Seam



QuadLok™ Seam

SUPERIOR RIB

The Superior Rib panel is designed for roof and exterior wall applications in architectural, commercial, residential, or industrial settings. The panel utilizes through-panel fastening and side-lap installation. The panel has trapezoidal ribs with a built-in water siphon channel. This means that when severe blowing rain tries to penetrate the lap, it is siphoned down the panel. The panel has 3/4" major ribs spaced at 9" o.c., with a total coverage of 36". Panels are fabricated from 26- or 29-gauge steel. The Galvalume®-coated or painted sheet will provide a long-lasting weathering membrane and has proven weather resistance in excess of 20 years.

APPLICATION

Roof covering as well as interior and exterior wall covering for new projects or retrofit construction.

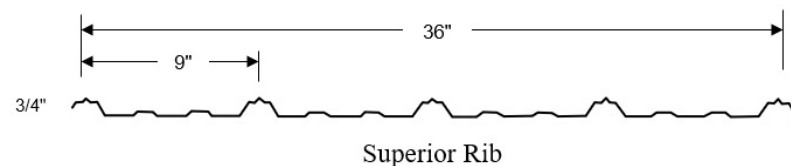
PANEL AND FLASHING MATERIALS

SUPERIOR RIB panels are made of 26- or 29-gauge steel, 80,000 psi minimum yield strength (ASTM A792, Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

The flashing and trim will be 24- or 26-gauge steel with a minimum yield strength of 50,000 psi (ASTM A792, SS Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

SEALANTS

All sealants are 100% solids, asbestos-free butyl tape sealants made from a highly rubbery, tacky, reinforced compound designed for sealing metal lap joints. The application temperature range for the sealant is -5° F to 120° F and service temperatures from -40° F to 200° F.



MAINTENANCE

Routine maintenance is required to maximize the life expectancy of the panel. Routine inspections of the roof, walls, flashings, gutters, and fasteners ensure that the investment will maximize performance of all new products.

FASTENERS

SUPERIOR RIB panels may be attached to secondary framing (purlins or girts) using self-drilling steel screws, #12 x 1 1/4" hex head with neoprene washer. Fasteners are available for use with up to 8" of blanket insulation. SUPERIOR RIB stitch screws, screws at side laps, are 1/4" – 14 x 7/8" self-drilling screws with neoprene washers.

PRODUCT NOTES

Oil-canning, a slight waviness inherent in light-gauge metal, may exist in this panel. This minor waviness does not affect the finish or structural integrity of the panel and is therefore not a cause for rejection.

WARRANTY

Up to 20-year material and paint finish warranty information available upon request. No weather-tightness warranty is available.

Galvalume® is an internationally recognized trademark of BIEC International, Inc., and its licensed producers.

SECTION PROPERTIES SUPERIOR RIB PANEL PROFILE

SECTION PROPERTIES: SUPERIOR RIB PANEL

GAUGE	YIELD STRESS (KSI)	WT. (PSF)	STEEL THICKNESS (IN.)	TOTAL THICKNESS (IN.)		
26	80	0.866	0.185	0.84		
29	80	0.704	0.149	1.16		
Ga.	Panel Top in Compression (Positive Bending)			Panel Bottom in Compression (Negative Bending)		
	Ixx (in 4/ft ²)	Sxx (in 3/ft ²)	Ma (ksi)	Ixx (in 4/ft ²)	Sxx (in 3/ft ²)	Max (in.kip s/ft)
26	0.0133	0.0220	0.7913	0.0093	0.0198	0.7123
29	0.0110	0.0181	0.6493	0.0073	0.0160	0.5760

Gauge	Span Type	Span Ft.					
		3.0	3.5	4.0	4.5	5.0	6.0
26	1	43 / -70	27 / -51	18 / -39	12 / -31	9 / -25	5 / -17
	2	53 / -78	35 / -57	23 / -43	16 / -34	12 / -28	7 / -19
	3+	61 / -91	45 / -66	34 / -51	24 / -40	17 / -32	10 / -22

Gauge	Span Type	Span Ft.					
		3.0	3.5	4.0	4.5	5.0	6.0
26	1	35 / -56	22 / -41	15 / -31	10 / -25	7 / -20	4 / -14
	2	42 / -64	29 / -47	19 / -36	13 / -28	10 / -23	5 / -16
	3+	49 / -74	36 / -54	28 / -42	19 / -33	14 / -26	8 / -18

- Section properties have been calculated in accordance with Supplement 2004 to the North American Specification, 2001 Edition, for the Design of Cold-Formed Steel Structural Members.
- Steel panels have a protective coating of either aluminum-zinc alloy or G-90 galvanizing.
- The base steel thickness was used in determining section properties.
- The minimum yield strength of 26- and 29-gauge steel is 80,000 psi.
- The deflection loads were calculated from a deflection limit of Span/60 for structural roof panels.
- The loads shown do not include allowance for the panel weight.
- Positive load is applied inward toward the panel supports and is applied to the outer surface of the panel cross-section. Negative load is applied in the opposite direction.

ULTRALOK

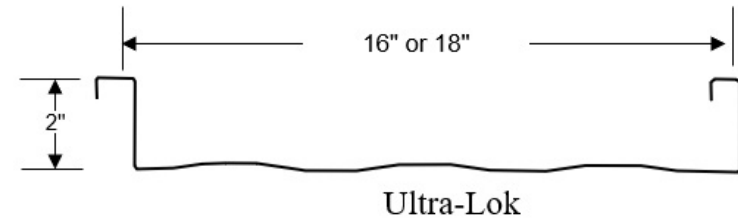
The UltraLok Roof System has been designed for use in architectural or functional applications where both appearance and weather resistance of the roof are primary concerns. Many standing seam roof systems have a similar appearance but have major differences in their performance. The UltraLok Roof System has many advantages over most other roof systems and, when properly installed, will offer excellent weather resistance and be practically maintenance-free. The UltraLok Roof System is adaptable for use on new construction and as a replacement roof for existing buildings where weather resistance is the most important design consideration.

PANEL

The panel will be fabricated from steel coated with Galvalume and optional factory-applied paint. Galvalume-coated steel sheet will provide a long-lasting weathering membrane. Galvalume coating has proven weather resistance in excess of 20 years. The steel sheet is impervious to moisture and will resist falling objects and roof traffic better than other known roof membranes commonly used. The steel panel profiles are designed to resist live load and wind uplift without the complexity and cost of additional substrate as required on most other roofing systems. The ultimate performance of a Galvalume-coated steel panel is determined by the effectiveness of the design of the steel panel, perimeter seals, and panel attachment methods.

PANEL AND FLASHING MATERIALS

The roof panels will be of 24- or 22-gauge steel, 50,000 psi minimum yield strength (ASTM A792, SS Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.



The flashing and trim will be 24- or 26-gauge steel with a minimum yield strength of 50,000 psi (ASTM A792, SS Grade 50, Class 1), coated with AZ50 (minimum) aluminum/zinc alloy for painted finish or AZ55 aluminum/zinc alloy for unpainted finish.

PANEL CLIPS

Panel clips fasten the roof panels to the structure. The clips are designed to allow the panel to float over the secondary structurals. Floating clips will have a tab and a base with a sliding interlock allowing the roof 1-3/4" of expansion and 1-3/4" of contraction movement. The floating clip tab will move in the sliding interlock of the 16-gauge galvanized steel clip base. The clip base will be protected from corrosion by galvanized coating that has similar weather resistance to that of the panel coating. Panel clips will be attached to the secondary structurals with two 1/4" - 14 x 11/4" self-drilling screws. Fasteners required for other building applications will be determined by the type of secondary structurals or the substrate used on the building.

SEAM

The UltraLok panels have a sidelap that can be formed into two types of seams:

- TripleLok™: The TripleLok seam is formed continuously by folding the sides of adjacent panels over each other to interlock the two panels so they form a watertight seal that will resist separation even if the panels are severely deformed. The TripleLok seam is partially formed in the factory and completed in the field with a powered seamer. The TripleLok seam will resist greater uplift forces than any known seam.
- QuadLok™: The "QuadLok" seam, commonly referred to as the "Pittsburgh 360," is used in high wind load areas and can reduce the need for additional sub-framing due to increased uplift forces at eaves and rakes.

SEALANTS

The seam sealant will be a non-drying, non-hardening, non-oxidizing sealant specifically formulated for factory sealing standing-seam roof panels. Sealant for the eave, end splice, ridge flashing, and rake trim will be non-drying, non-hardening tape sealant specifically formulated for field application at temperatures of 20° F to 120° F. The service temperature range for both sealants will be -60° F to 180° F.

CLOSURES

The end dam to be used at the ridge and high side of a single-slope roof is a die-formed steel closure with factory-punched holes. The end dam seals the outside of the panel at the ridge or high edge of a single-slope roof panel to the ridge or high edge of roof flashing. The seal is developed using gasket techniques similar to those used at the endlap. The tape sealant is sandwiched between the roof panel, which is fully supported by a rigid heavy-gauge back-up channel and the flange of the end dam. The fasteners placed in the factory-punched holes clamp the back-up channel and end dam together. The clamping force uniformly compresses the sealant between the panel and the end dam causing the sealant to be extruded with over one ton of force. The extruded sealant provides a seal that will resist wind-blown water.

FASTENERS

The UltraLok Roof System does not have exposed through-fasteners that penetrate the roof membrane over the building envelope except at panel endlaps on roof runs that are longer than the length a panel can be shipped. Endlap fasteners: Only five (5) endlap fasteners will be required to seal the panel endlaps. Endlap fasteners will be oversized #12 - 14 x 11/4" self-drilling screw fasteners to minimize potential for fastener strip-out.

All exposed fasteners are self-drilling and will not require special tools other than industry-standard screw guns. Fasteners will have metal-backed neoprene sealing washers with aluminum/zinc cap.

TESTING DATA

The UltraLok panel outperforms all known existing single-skin roof systems in three of the leading tests for wind uplift resistance. These tests are UL 580 Class 90, ASTM E1592, and Factory Mutual 4471. The UltraLok panel has also been tested in accordance with ASTM E1680, Rate of Air Leakage Through Exterior Metal Roof Panel Systems; and ASTM E1646, Water Penetration of Metal Roof Panel Systems.

WARRANTY

Twenty-year material and weather-tightness warranties are available.

PRODUCT NOTES

Oil-canning, a slight waviness inherent in light-gauge metal, may exist in this panel. This minor waviness does not affect the finish or structural integrity of the panel and is therefore not a cause for rejection.

Galvalume® is an internationally recognized trademark of BIEC International, Inc., and its licensed producers.

SECTION PROPERTIES: 16" WIDE, 50 KSI ULTRALOK PANEL						
Gauge	Panel Thickness (in.)	Wt. (psf)	Yield Stress (ksi)		Allowable Shear kips/ft	
24	0.0221	1.254	50		0.79	
22	0.0275	1.555	50		1.22	
Ga.	Panel Top in Compression (Positive Bending)			Panel Bottom in Compression (Negative Bending)		
	l _{xe} (in 4/ft)	S _{xe} (in 3/ft)	Maxo (in 3/ft)	l _{xe} (in 4/ft)	S _{xe} (in 3/ft)	Maxo (in.kips/ft)
24	0.1943	0.1113	3.333	0.0900	0.0762	2.282
22	0.2490	0.1448	4.337	0.1155	0.1002	2.999

ALLOWABLE GRAVITY LOADS – ALL LOADS IN POUNDS PER SQUARE FOOT										
24 Gauge Steel	Span Condition		Span (in feet)							
			2	2.5	3	3.5	4	4.5	5	6
	SS	Stress	555.5	355.5	246.9	181.4	138.9	109.7	88.9	61.7
		L/180	2122.4	1086.6	628.8	396	265.3	186.3	135.8	78.6
	DS	Stress	235.9	219.3	156.9	117.4	91.1	72.6	59.2	41.4
		L/180	5108.1	2615.4	1513.5	953.1	638.5	448.4	326.9	189.2
22 Gauge Steel	TS	Stress	366.7	249.4	179.6	135.1	105	83.9	65.5	48.1
		L/180	4005.1	2050.6	1186.7	747.3	500.6	351.6	256.3	148.3
	SS	Stress	722.8	462.6	321.2	236.0	180.7	142.8	115.6	80.3
		L/180	2720.6	1392.9	806.1	507.6	340.1	238.8	174.1	100.8
	DS	Stress	445.0	296.1	210.3	156.7	121.1	96.3	78.4	54.8
		L/180	6547.9	3352.5	1940.1	1221.8	818.5	574.8	419.1	242.5
	TS	Stress	504.7	338.7	241.8	180.8	140.1	111.6	90.9	63.6
		L/180	5133.9	2628.6	152.2	957.9	641.7	450.7	328.6	190.1

- Section properties and allowables are calculated in accordance with the North American Specification for the Design of Cold-Formed Steel Structural Members (2001 Edition and 2004 Supplement)
- I +/- is for deflection determination, S +/- is for bending determination, and Ma is the allowable bending moment.
- Ma is the allowable bending moment, and Va is the allowable shear.
- All values are for one foot of panel width.
- Web Crippling:
 - 24 gauge: Allowable intermediate bearing at 2.5" = 0.357 kips/ft; Allowable end bearing at 2.5" = 0.126 kips/ft
 - 22 gauge: Allowable intermediate bearing at 2.5" = 0.534 kips/ft; Allowable end bearing at 2.5" = 0.189 kips/ft
- UltraLok Allowable Gravity Loads - All loads in lbs per sq.ft.
- A. 24 Gauge Material (Fy = 50 ksi)

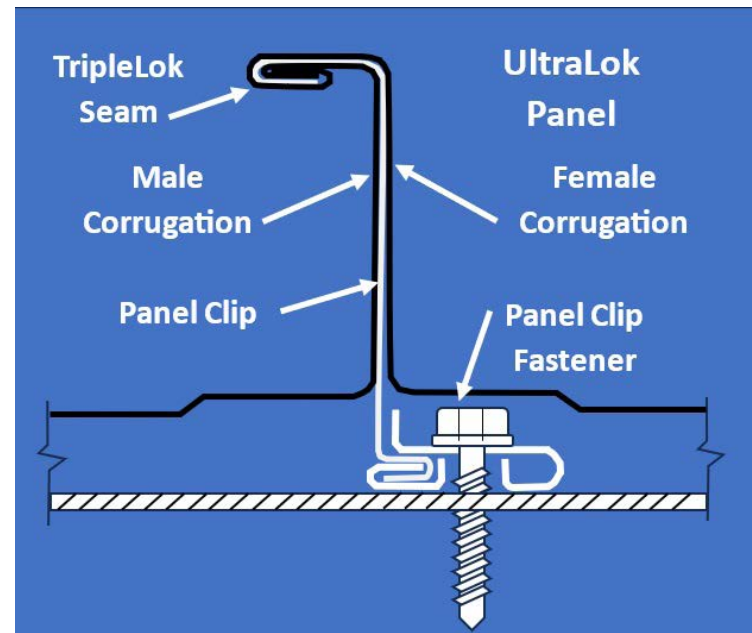
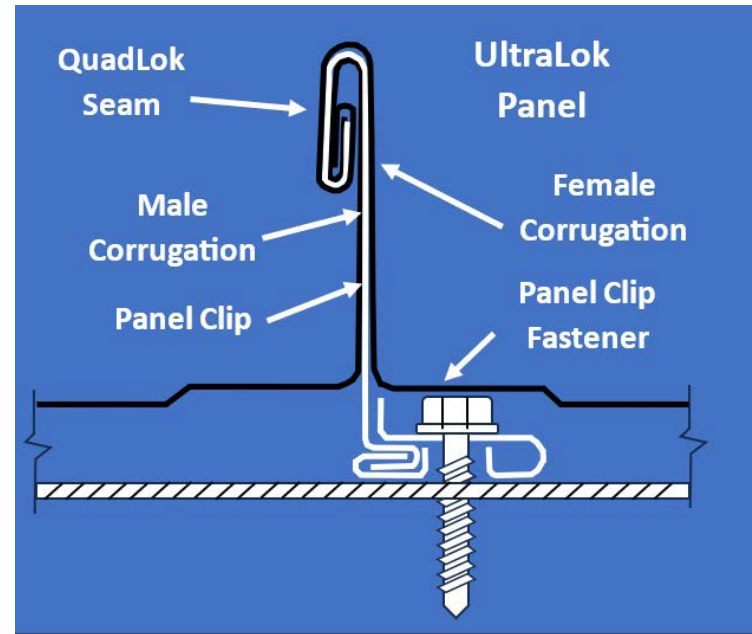
- Allowable load based on stress is the smallest load due to bending, shear, and combined bending and shear.
- Allowable load based on deflection limit cannot exceed allowable load based on stress.
- These loads are for panel strength. Frames, purlins, clips, fasteners, and all supports must be designed to resist all loads imposed on the panel.
- Allowable loads for deflection are based on deflection limitation of span/180.
- For roof panels, self-weight of the panel has to be deducted from the allowable inward load to arrive at the actual 'live load' carrying capacity of the panel.
- TripleLok Seam: UltraLok Allowable Wind Uplift Loads
- 24 Gauge Material (Fy = 50 ksi) - All loads in pounds per sq.ft.

TRIPLELOK SEAM			
Span	1592 Test Ultimate Load	1592 Design Load	COE Design Load
2.0	232.3	136.4	140.8
2.5		113.2	116.9
3.0		94.3	97.3
3.5		80.9	83.5
4.0		70.8	73.1
4.5		62.9	64.9
5.0	96.5	56.6	58.5

QuadLok Seam: UltraLok Allowable Wind Uplift Loads
 24 Gauge Material (Fy = 50 ksi) - All loads in pounds per sq.ft.

QUADLOK SEAM			
Span	1592 Test Ultimate Load	1592 Design Load	COE Design Load
2.0	332.0	194.7	201.2
2.5		157.6	163.0
3.0		131.3	135.8
3.5		112.6	116.5
4.0		98.5	101.9
4.5		87.6	60.9
5.0	134.7	78.8	81.6

- The above tabulated loads are generated from certified ASTM E-1592 testing.
- Intermediate design loads are interpolated from ultimate test loads.
- Design loads contain a safety factor calculated per AISI.
- COE design load contains a 1.65 safety factor per COE 07416 Specification.
- These load capacities are for the panel itself. Frames, purlins, clips, fasteners, and all supports must be designed to resist all loads imposed by the panel.
- Allowable wind uplift loads have not been increased by 33% as allowed by some codes when wind load controls.
- This material is subject to change without notice. Contact ACI Metal Roofing Systems, Inc. for the most current values.





COLD-FORMED MEMBERS

Cold-formed steel is widely used in buildings of all types and in all industries. Its popularity is attributed to its ease of production and prefabrication, its uniform quality, lightweight design, economy in transportation and handling, and simple erection and/or installation. ACI cold-formed steel products provide a significant market advantage because of their strength, durability, and numerous building applications. At ACI, we have just the right solution for your project.



BUILT FAST. BUILT TO LAST.

ACI's Accelerated Building Systems combine state-of-the-art cold-formed steel construction with precision engineering, delivering custom-designed solutions that streamline the build process. This approach guarantees rapid, reliable assembly and structural integrity, catering to both commercial and residential needs with a clear focus on reducing construction times without sacrificing quality or adaptability.

DELIVERY IN AS LITTLE AS 4 WEEKS

ENGINEERING PLANS WITHIN 5 DAYS

SAVE MONEY WITH 25% LESS CONCRETE
IN FOUNDATIONS AND POST-INSTALL
ANCHOR BOLTS



**PLAN YOUR NEW STEEL
BUILDING WITH OUR
ONLINE DESIGN TOOL!**

ACI ACCELERATED BUILDINGS ARE IDEAL FOR:



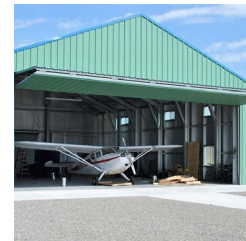
Residential



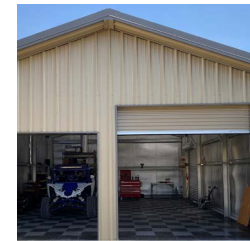
Agricultural



Barns/Shelters



Hangars



Storage

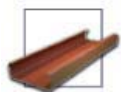


Commercial

THE ACCELERATED ADVANTAGE:

- Weld-free and simple construction process
- Precise, accurate components with no cutting to length on site
- Save money, 25% less concrete in foundations and post-install anchor bolts
- Design your own building with our easy-to-use online builder
- Foundation plans are included at no additional cost
- Includes easy-to-follow instructions for the customer
- Accelerated buildings are incredibly customizable
- Two-story buildings with mezzanine floor plans are available
- Our buildings are designed for bolt and screw construction and installation
- Save time and money with our one-of-a-kind slab-to-building engineering

WE HAVE AN EXTENSIVE SELECTION OF UNIFORM, LIGHTWEIGHT, AND EASY-TO-INSTALL STEEL MEMBERS FOR ANY INSTALLATION.



10" x 2 1/2" Cee



6" x 2 1/2" Cee



14" x 3" Cee



4" x 2" Angle



7" x 3" Angle



2" x 2" Angle



6" x 2 1/2" Zee



8" x 2 1/2" Zee



8" Eave Strut



10" x 2 1/2" Zee



4" x 2 1/2" Cee



6" x 4" Angle



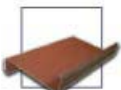
10" Eave Strut



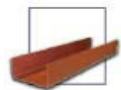
4" x 2 1/2" Zee



4" x 2 1/2" Open
Face



14" x 3" Zee



6" x 2 1/2" Open
Face



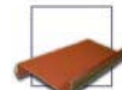
10" x 2 1/2" Cee



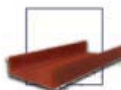
3" x 3" Sq Tubing
14 Ga



7" x 7" Angle



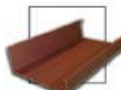
8 1/2" x 2 1/2" Cee



10" x 2 1/2" Open
Face



14" x 3" Cee



12" Eave Strut



Hat Channel



High Eave Plate



Low Eave Plate



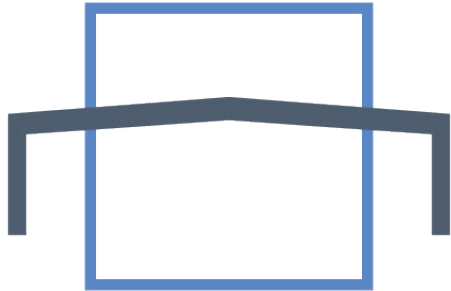
Sag Strut



FRAME TYPES

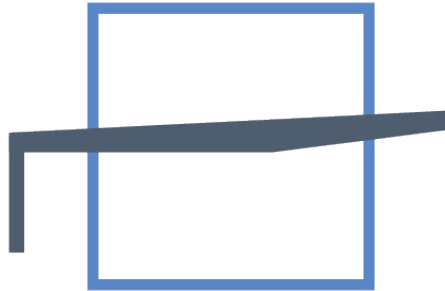
ACI produces just the right frame for just the right application

As a custom steel building manufacturer, we produce a variety of structural frame systems including flush wall clear span, rigid frame, modular rigid frame, tapered beam, and single-slope. Your ACI metal building can be designed to virtually any desired dimensions to achieve the optimal design solution for your building. From 20' to 250' – gable or single-slope – we have the right frame type for your project.



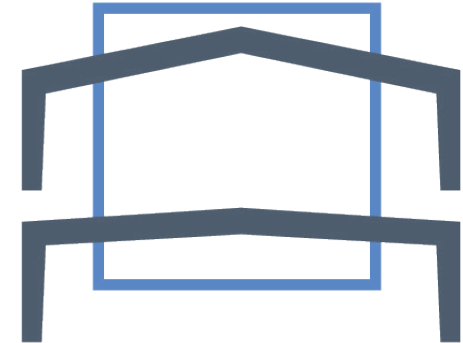
FLUSH WALL CLEAR SPAN

These buildings offer flush, unbroken interior wall spaces with open, column-free floor areas. Their attractiveness and versatility make them ideal for convenience stores and small office buildings.



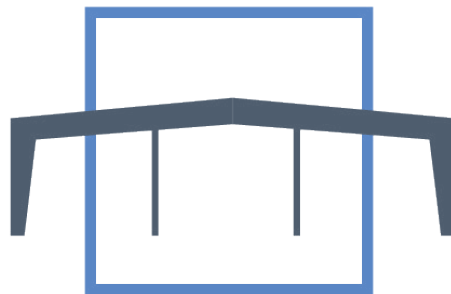
LEAN-TO

These structures economically increase the width of existing or new buildings without the additional need for a valley gutter. They are ideal for retail buildings, office complexes, and shopping centers.



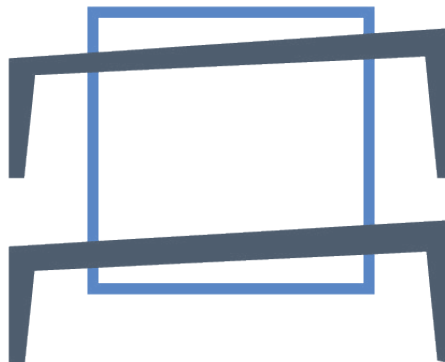
RIGID FRAME CLEAR SPAN

These structures are used where a large column-free floor area is required. The extensive size and structural integrity of these buildings make them ideal for auditoriums, gymnasiums, showrooms, and aircraft hangars.



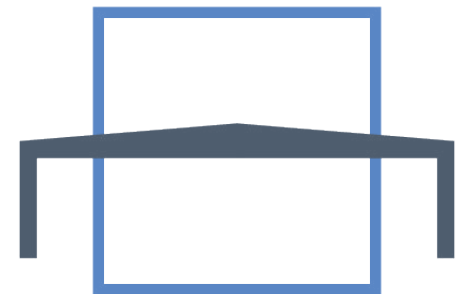
RIGID FRAME WITH POST

These buildings provide maximum width at the most economical cost and are ideal for most manufacturing plants, industrial warehouses, retail buildings, and shopping centers.



SINGLE SLOPE CLEAR SPAN

These buildings are used where one-way roof drainage is desired and a column-free floor area is required. They are ideal for individual retail buildings, office complexes, and shopping centers.



TAPERED BEAM STRAIGHT COLUMN

These column-free structures economically encompass shorter-span areas and are ideal for small retail stores, buildings, and offices.

COLOR SELECTION

2000 SERIES ADVANCED EXTERIOR FINISHES

GROUP 6



6B - POLAR WHITE



GM - GALVALUME



7B - LIGHT STONE



7C - ASH GRAY



7D - DESERT SAND



7E - SAHARA TAN



7F - BURNISHED SLATE



7G - RUSTIC RED



7H - CHARCOAL GRAY



7I - KOKO BROWN



7J - COLONY GREEN



7K - AZTEC GOLD



CB - COAL BLACK

GROUP 8



8B - HAWAIIAN BLUE



8C - EVERGREEN



8D - FERN GREEN

3000 SERIES PREMIUM 70% PVDF COATING SYSTEM

GROUP 1



1B - SNOW WHITE



1C - ALMOND



GM - GALVALUME

GROUP 2



2B - MIDNIGHT BRONZE



2C - MEDIUM BRONZE



2D - SLATE GRAY



2E - BROWNSTONE



2F - EVERGLADE

GROUP 3



3B - CLASSIC GREEN

GROUP 4



4B - COPPER METALLIC



4C - HARBOR BLUE



4D - SCARLET RED

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The very best components and accessories for your next project.



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