

Design Span® hp

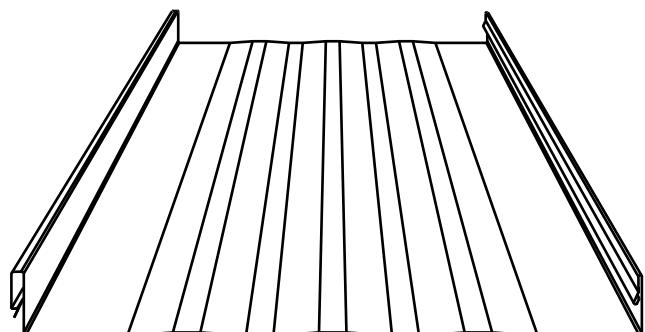


Featuring

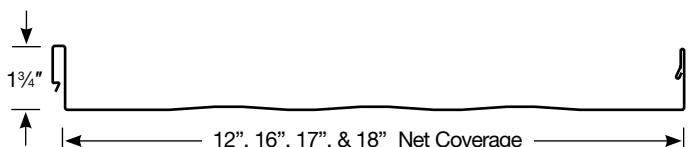
Zincalume® For Twice the Life!

Zincalume combines the strength of steel with the corrosion resistance of aluminum for twice the life of most zinc coatings.

Design Span hp is a performance-rated structural standing seam metal roof system with net coverage of 12", 16", 17" and 18". Design Span *hp* is excellent as a roof over metal or wood decking, and as a fascia or mansard over plywood or supports.



Available with subtle striations for a clean pan (16", 17", 18")



Section Properties

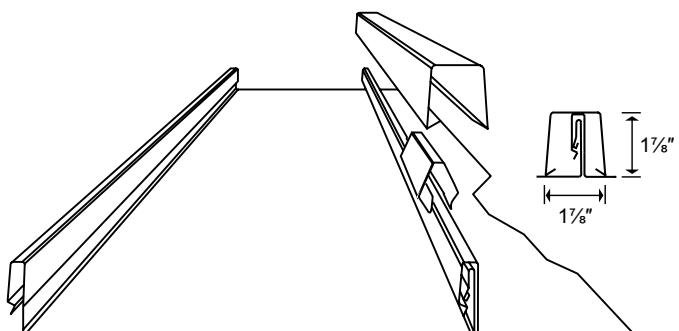
Gage	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft ²)	I _{+/-} (in ⁴ /ft)	S ₊ (in ³ /ft)	I ₋ (in ³ /ft)	S ₋ (in ³ /ft)
12" Design Span hp								
24	0.0232	50	65	1.42	0.1226	0.0875	0.0762	0.0586
22	0.0294	50	65	1.79	0.1528	0.1090	0.0997	0.0771
16" Design Span hp								
24	0.0232	50	65	1.30	0.0960	0.0655	0.0593	0.0440
22	0.0294	50	65	1.64	0.1223	0.0838	0.0773	0.0580
17" and 18" Design Span hp								
24	0.0232	50	65	1.26	0.0867	0.0580	0.0533	0.0391
22	0.0294	50	65	1.60	0.1113	0.0751	0.0696	0.0515

NOTE: The hybrid positive moment of inertia, I, presented for determining deflection is: $(2I_{\text{Effective}} + I_{\text{Gross}})/3$

features | benefits

- Subtle striations between ribs on 16" and wider panels reduce the appearance of oil-canning.
- Panel is standard in 12", 16" and 17" widths. 18" is non-standard.
- Available in a wide variety of standard colors in the DuraTech® 5000 (polyvinylidene fluoride) coating systems and DuraTech® mx (metallic polyvinylidene fluoride)
- Tested in accordance with UL580 & ASTM E1592.
- Meets UL 90 wind uplift requirements.
- Has been tested for air infiltration per ASTM E1680, and water infiltration per ASTM E1646.
- Can be installed over solid substrates or spaced support members.
- Factory applied butyl sealant is standard.

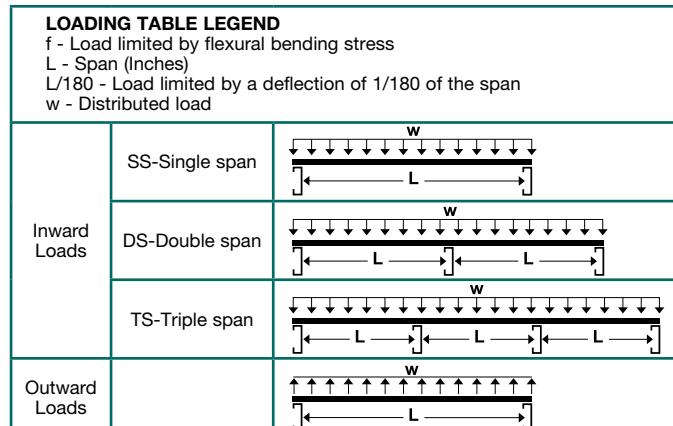
- Snap-together panel, no field seaming required.
- Available with a 1 1/8" notch at both ends of each panel for the ease of turning under; reducing installation labor and costs (not available on 12" and 18" wide panels in Tacoma, WA).
- Design Span *hp* Batten has a clean bold look with the structural capacity and weather resistance of regular Design Span *hp*.



12" Design Span hp												
Gage	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)									
			1-0	1-6	2-0	2-6	3-0	3-6	4-0	4-6	5-0	
24	SS	f	1750	777	437	280	194	142	109	86	70	
		L/180	-	-	-	-	-	-	-	-	-	
	DS	f	1172	520	293	187	130	95	73	57	46	
		L/180	-	-	-	-	-	-	-	-	-	
	TS	f	1465	651	366	234	162	119	91	72	58	
		L/180	-	-	-	-	-	-	-	-	-	
22	SS	f	2180	968	545	348	242	177	136	107	87	
		L/180	-	-	-	-	-	-	-	-	-	
	DS	f	1542	685	385	246	171	125	96	76	61	
		L/180	-	-	-	-	-	-	-	-	-	
	TS	f	1927	856	481	308	214	157	120	95	77	
		L/180	-	-	-	-	-	-	-	-	-	
Allowable Outward Loads (lbs/ft ²) per Span (ft.-in.)												
Gage	1-0	1-6	2-0	2-6	3-0	3-6	4-0	4-6	5-0			
24	81.9	76.1	70.8	65.9	61.4	57.4	53.8	50.7	48.0			
22	81.9	76.1	70.8	65.9	61.4	57.4	53.8	50.7	48.0			

16" Design Span hp												
Gage	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)									
			1-0	1-6	2-0	2-6	3-0	3-6	4-0	4-6	5-0	
24	SS	f	1309	582	327	209	145	106	81	64	52	
		L/180	-	-	-	-	-	-	-	-	-	
	DS	f	879	390	219	140	97	71	54	43	35	
		L/180	-	-	-	-	-	-	-	-	-	
	TS	f	1098	488	274	175	122	89	68	54	43	
		L/180	-	-	-	-	-	-	-	-	-	
22	SS	f	1675	744	418	268	186	136	104	82	67	
		L/180	-	-	-	-	-	-	-	-	-	
	DS	f	1159	515	289	185	128	94	72	57	46	
		L/180	-	-	-	-	-	-	-	-	-	
	TS	f	1449	644	362	231	161	118	90	71	57	
		L/180	-	-	-	-	-	-	-	-	-	
Allowable Outward Loads (lbs/ft ²) per Span (ft.-in.)												
Gage	1-0	1-6	2-0	2-6	3-0	3-6	4-0	4-6	5-0			
24	48.6	42.3	35.9	29.5	29.2	28.9	28.7	28.4	28.1			
22	74.4	66.0	57.6	49.3	48.6	47.9	47.3	46.6	46.0			

17" and 18" Design Span hp												
Gage	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)									
			1-0	1-6	2-0	2-6	3-0	3-6	4-0	4-6	5-0	
24	SS	f	1160	515	290	185	128	94	72	57	46	
		L/180	-	-	-	-	-	-	-	-	-	
	DS	f	782	347	195	125	86	63	48	38	31	
		L/180	-	-	-	-	-	-	-	-	-	
	TS	f	978	434	244	156	108	79	61	48	39	
		L/180	-	-	-	-	-	-	-	-	-	
22	SS	f	1502	667	375	240	166	122	93	74	60	
		L/180	-	-	-	-	-	-	-	-	-	
	DS	f	1030	458	257	164	114	84	64	50	41	
		L/180	-	-	-	-	-	-	-	-	-	
	TS	f	1288	572	322	206	143	105	80	63	51	
		L/180	-	-	-	-	-	-	-	-	-	
Allowable Outward Loads (lbs/ft ²) per Span (ft.-in.)												
Gage	1-0	1-6	2-0	2-6	3-0	3-6	4-0	4-6	5-0			
24	47.0	38.8	33.1	29.4	27.2	26.2	25.8	25.7	25.3			
22	65.5	55.5	48.4	43.8	41.1	39.7	39.2	39.0	38.6			



NOTES:

- Top values based on allowable stress.
- Bottom values based on allowable deflection of L/180.
- “-” denotes that the allowable deflection is limited by the allowable flexural bending stress.
- Steel conforms to ASTM A792 (Zincalume) 50,000 psi minimum yield.
- Values are based on the American Iron and Steel Institute (AISI) “Cold Formed Steel Design Manual” (2007 Edition).

Specifications subject to change without notice.