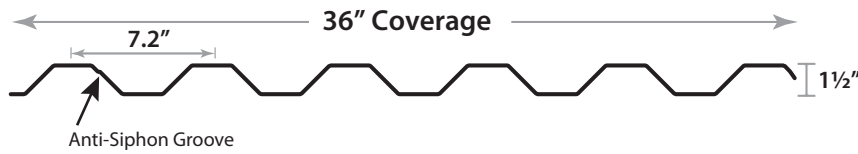


# FLATIRON STEEL

## 7.2 ULTRA BOX PANEL

### MATERIAL SPECIFICATIONS



### LOAD TABLES

Refer to Trim Pamphlet for Material Availability

26 Gauge (0.0181"), Fy = 60 ksi, Fu = 61.5 ksi		SPAN IN FEET							
SPAN TYPE	LOAD TYPE	3.0	4.0	5.0	6.0	7.0	8.0	9.0	
1-span	NEGATIVE WIND LOAD	237.61	133.66	85.54	59.40	43.64	33.41	26.40	
	LIVE LOAD/DEFLECTION	162.95	103.02	52.75	30.53	19.22	12.88	9.04	
2-span	NEGATIVE WIND LOAD	222.59	136.44	91.38	65.16	48.68	37.69	30.01	
	LIVE LOAD/DEFLECTION	143.95	107.96	79.83	56.57	42.08	32.49	25.82	
3-span	NEGATIVE WIND LOAD	258.47	162.17	110.20	79.32	59.63	46.36	37.03	
	LIVE LOAD/DEFLECTION	163.58	122.69	97.08	64.84	40.83	27.35	19.21	
4-span	NEGATIVE WIND LOAD	247.30	153.99	104.13	74.72	56.05	43.52	34.72	
	LIVE LOAD/DEFLECTION	157.45	118.09	91.48	65.14	44.07	29.52	20.74	

24 Gauge (0.0223"), Fy = 50 ksi, Fu = 60 ksi		SPAN IN FEET							
SPAN TYPE	LOAD TYPE	3.0	4.0	5.0	6.0	7.0	8.0	9.0	
1-span	NEGATIVE WIND LOAD	251.48	141.46	90.53	62.87	46.19	35.36	27.94	
	LIVE LOAD/DEFLECTION	202.14	135.78	69.52	40.23	25.33	16.97	11.92	
2-span	NEGATIVE WIND LOAD	253.79	147.73	96.14	67.39	49.79	38.27	30.31	
	LIVE LOAD/DEFLECTION	156.28	117.21	88.20	61.73	45.57	35.00	27.71	
3-span	NEGATIVE WIND LOAD	307.17	181.07	118.61	83.46	61.81	47.58	37.73	
	LIVE LOAD/DEFLECTION	177.59	133.19	106.55	76.57	53.77	36.02	25.30	
4-span	NEGATIVE WIND LOAD	289.91	170.16	111.21	78.15	57.83	44.49	35.27	
	LIVE LOAD/DEFLECTION	170.93	128.19	102.17	71.66	52.97	38.84	27.28	

22 Gauge (0.0286"), Fy = 50 ksi, Fu = 60 ksi		SPAN IN FEET							
SPAN TYPE	LOAD TYPE	3.0	4.0	5.0	6.0	7.0	8.0	9.0	
1-span	NEGATIVE WIND LOAD	346.31	194.80	124.67	86.58	63.61	48.70	38.48	
	LIVE LOAD/DEFLECTION	322.96	181.52	92.94	53.78	33.87	22.69	15.94	
2-span	NEGATIVE WIND LOAD	357.18	205.97	133.40	93.26	68.79	52.81	41.80	
	LIVE LOAD/DEFLECTION	199.38	149.54	119.63	85.47	63.01	48.35	38.28	
3-span	NEGATIVE WIND LOAD	435.96	253.83	165.20	115.80	85.57	65.76	52.09	
	LIVE LOAD/DEFLECTION	226.57	169.93	135.94	106.25	71.31	47.77	33.55	
4-span	NEGATIVE WIND LOAD	410.29	238.09	154.70	108.33	80.00	61.46	48.67	
	LIVE LOAD/DEFLECTION	218.07	163.56	130.84	99.36	73.31	51.25	35.99	

- \*Notes:
- Strength Calculations based on the 2012 AISI Standard "North American Specification for the Design of Cold-formed Steel Structural Members."
  - Allowable loads are applicable for uniform loading and spans without overhangs.
  - LIVE LOAD/DEFLECTION load capacities are for those loads that push the panel against its support. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and a deflection limit of L/180 under strength-level loads.
  - NEGATIVE WIND LOAD capacities are for those loads that pull the panel away from its supports. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
  - Panel pullover and Screw pullout capacity must be checked separately using the screws employed for each particular application when utilizing this load chart.
  - Effective yield strength has been determined in accordance with section A2.3.2 of the 2012 NAS specification.
  - The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
  - This material is subject to change without notice please contact Flatiron Steel for most current data.

The Engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the **North American Specification for the Design of Cold-Formed Steel Structural Members** published by the American Iron and Steel Institute to facilitate design. The Specification contains the design criteria for cold formed steel components. Along with the Specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.

**Available Gauges:** 22, 24 & 26

**Weight:** 5.00lbs/LnFt (22), 4.00lbs/LnFt (24), 3.00lbs/LnFt (26)

**Substrate:** AZ-50, Grade D, 50,000ksi

**Available Materials:** Painted, Galvalume, Bonderized®, Core Ten™, Cold Roll, 16 & 20 oz Copper

**Paint Systems:** Kynar500®/Hynar5000® Valspar™

**Warranties:** Durapon70™ PVDF – 35 year  
ULTRA-CLAD™ – 35 year  
Zincalume® AZ50 – 20 year  
Valspar™ PVDF – 35 year

**Minimum Slope:** 1:12

1" Butyl Sealant and stitch screws required

### Testing:

- UL 580 Wind Uplift (Class 90)
- UL 2218 Class 4 Hail Impact
- UL 790 Class A Fire Rating



- ASTM 1680
- ASTM 1646
- ASTM E283
- ASTM E331
- ASTM E330 / E330M
- ASTM 1592

7.2 ULTRA BOX RIB

### APPLICATION DETAILS

#### Fastener Guide:

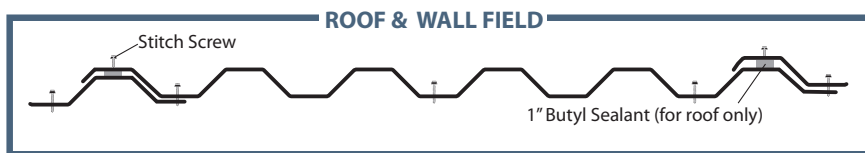
- #10 Woodfast screws are designed for use with dimensional lumber
- #14 Wafer screws are designed for use with plywood sheathing, OSB, and wafer wood (7/16" minimum thickness)
- #12 Tek Screws are designed to be used with structural steel up to 3/16" in thickness

#### Fastener Application:

Screws are to be applied in the middle of every other trough and then on both sides of the rib at each overlap of the panels, installed not more than 5'0" up the panel. At eaves and panel end laps, use a double screw pattern, and fasten into the middle of every trough. On all roofing applications, 1" Butyl Sealant must be applied between every panel at the side lap with Stitch Screws installed every 1'0" up the panel.

**Please Note:** It is the responsibility of the builder to ensure that purlins are adequately spaced to meet specific engineering requirements.

### Screw Patterns:



**\*\*Flatiron Steel is neither partially or soley responsible for improper installation or defects as a result of installation\*\***