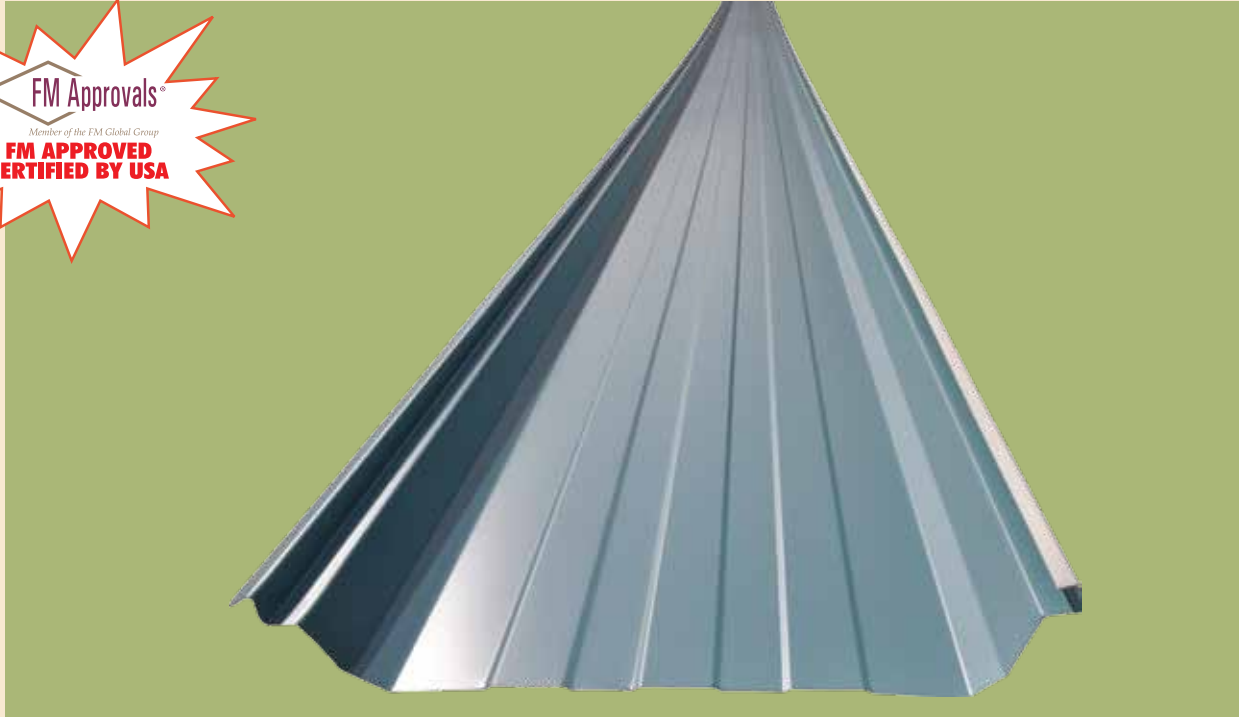


# KIRBY STANDING SEAM PANELS

(KSS-450)



The introduction of the **Kirby Standing Seam Panel systems (KSS-450)** with double lock standing seam ends, eliminates the risk of leakage at fasteners and side and end laps due to the concealed fastening system and provides excellent protection in all weather conditions. It assures consistent weather tightness with virtually maintenance free performance for many years. The KSS-450 roof system is the most specified standing seam roof system in the market since many years

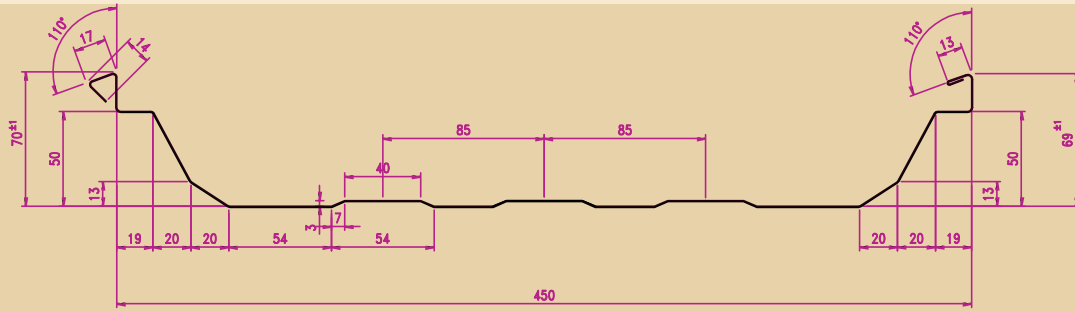
**Kirby's KSS-450 Standing Seam** Roof System has received the prestigious **Factory Mutual Approval (FM approval) from USA**. The FM approval is a certification for the high product quality and reliability of these roof systems. This approval qualifies the company to provide world-class pre-engineered building (PEB) solutions to all the FM Global insured clients investing in India and the SAARC region.

## Salient Features

- ❖ Use of specially designed, proprietary concealed clips for fixing leads to a puncture free roof ensuring no leakages through fastener holes.
- ❖ Sheets in long lengths, far beyond transportable lengths made available due to feasibility of site rolling
- ❖ End laps which have potential for water ingress eliminated by use of single sheet from eave to ridge.
- ❖ Raised seam provides deeper roof drainage and low roof pitch.
- ❖ Moveable tabs in clips accommodate roof movement with daily and seasonal temperature changes.
- ❖ Leak proof side laps are possible by machine seaming the edges through a full 360°.
- ❖ Faster roof installation with reduced operator fatigue possible by use of compact, heavy duty portable seaming machine.
- ❖ Excellent geometrical properties due to high profile depth and intermediate stiffening ribs, enables span of more than 2 meters for roofing.



# KSS - 450 STANDING SEAM PROFILE



SECTION PROPERTIES per meter width. ASTM A792 Gr:50 & A924 Gr:50 (Fy=345MPa).

Thickness MM	Weight Kg/m <sup>2</sup>	Area cm <sup>2</sup>	TOP FLAT IN COMPRESSION		BOT. FLAT IN COMPRESSION	
			I <sub>xe</sub> (cm <sup>4</sup> )	S <sub>xe</sub> (t) (cm <sup>3</sup> )	I <sub>xe</sub> (cm <sup>4</sup> )	S <sub>xe</sub> (b) (cm <sup>3</sup> )
26 Ga	4.80	6.11	26.926	4.670	11.199	2.892
24 Ga	5.75	7.32	34.204	6.035	14.260	3.920

ALLOWABLE UNIFORM LOAD (kN/m<sup>2</sup>)

Thickness mm	No. of Spans	Load Case	Span in Meters									
			1.00	1.20	1.40	1.50	1.60	1.70	1.80	2.00	2.20	2.40
26Ga	upto 2	D+L	7.71	5.36	3.93	3.43	3.01	2.67	2.38	1.93	1.59	1.34
		Uplift	6.55	4.55	3.34	2.91	2.56	2.27	2.00	1.46	1.10	0.84
	3 or more	D+L	9.64	6.69	4.92	4.28	3.77	3.34	2.98	2.41	1.99	1.67
		Uplift	8.19	5.68	4.18	3.64	3.20	2.83	2.53	2.05	1.69	1.42
24Ga	upto 2	D+L	9.97	6.92	5.09	4.43	3.89	3.45	3.08	2.49	2.06	1.73
		Uplift	8.61	5.98	4.39	3.83	3.36	2.98	2.55	1.86	1.39	1.07
	3 or more	D+L	12.46	8.65	6.36	5.54	4.87	4.31	3.85	3.12	2.57	2.16
		Uplift	10.76	7.47	5.49	4.78	4.20	3.72	3.32	2.69	2.22	1.87

- NOTES:**
1. Section properties are calculated in accordance with the edition 2001 of the American iron & steel institute 'specifications' (A I S I)
  2. Deflection limitation is considered as span/180 for DL + LL and span/150 for wind uplift case
  3. The base material yield strength, Fy = 345 n/mm<sup>2</sup>
  4. The allowable stresses are increased by BY 33-1/3% for the uplift case
  5. Data applied for standard KSS-600 profile. Actual valid parameters for KSS - 450 should be better and will be updated when available



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