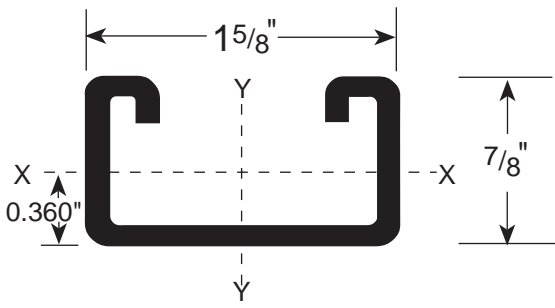


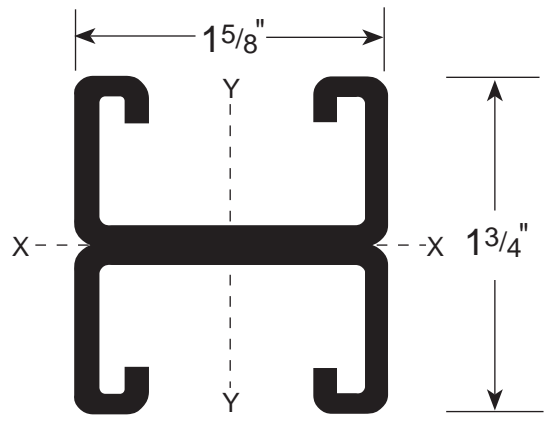
FS-450 • 7/8" CHANNEL • 12 Gauge

SECTION PROPERTIES			X-X AXIS			Y-Y AXIS		
CHNL P/N	WT/FT LBS.	AREA SQ. IN.	I _x in ⁴	S _x in ³	R _x in	I _y in ⁴	S _y in ³	R _y in
FS-450	1.35	.400	.037	.073	.305	.146	.180	.603
FS-451	2.70	.800	.183	.208	.475	.294	.361	.603

I = Moment of Inertia S = Section Modulus R = Radius of Gyration



FS-450



FS-451

CHANNEL FINISH: • PLAIN (PL) • PRE-GALVANIZED (PG) • GREEN (GR)
• HOT-DIPPED GALVANIZED (HD)

STANDARD LENGTH: 20 FT. • 10 FT.

ALLOWABLE BEAM LOADS — Span In Inches

CHNL P/N		24"	30"	36"	42"	48"	60"	72"	84"	96"	108"	120"
FS-450	Stress	600	480	400	340	300	240	200	170	150	130	120
	1/240	***	400	270	201	150	100	70	50	40	30	25
FS-451	Stress	1,380*	1,380*	1,160	995	870	695	580	500	435	385	350
	1/240	***	***	***	***	765	490	340	250	190	150	120

- TOTAL STATIC LOAD in LBS.
- Upper line is MAXIMUM ALLOWABLE UNIFORM LOAD creating 25,000 PSI Bending Stress about the X-Axis based on SIMPLE BEAM condition.
- Lower line shows TOTAL UNIFORM LOAD which produces a deflection of 1/240th of the SPAN, (i.e.; 1/2" Def. for 120" Span)
- Multiply values in upper line by 0.5 to obtain ALLOWABLE CENTER CONCENTRATED LOAD at 25,000 PSI Stress. Deflection by 0.8.
- * Load limited by spot weld shear.
- For punched channel, reduce weld limited loads by 0.75 due to 4" weld spacing.
- *** Load controlled by 25,000 PSI design stress.

ALLOWABLE COLUMN LOADS — Unsupported Height of Column in Inches

CHNL P/N		24"	30"	36"	42"	48"	60"	72"	84"	96"	108"	120"
FS-450		5,965	5,390	4,755	4,100	3,450	2,305	1,600	*****	*****	*****	*****
FS-451		13,280	12,715	12,060	11,325	10,535	8,855	7,160	5,570	4,265	3,370	*****

***** = KL/R > 200

- COLUMN LOADS are allowable axial loads applied at the section centroid. Loads applied at the slot face must be reduced for Eccentricity.
- ALLOWABLE COLUMN LOADS shown are based upon an effective length factor K = 0.8 standard engineering practice required for evaluation of other conditions.