KS KING
STEEL STUDS

2-1/2" STRUCTURAL STUD WITH 1-5/8" FLANGE

Web Depth	2.50	(in)
Flange Width	1.625	(in)
Lip Length	0.5	(in)
Design Thickness	0.0451	(in)
Min. Deliverable Thickness	0.0428	(in)
Punchout Width	1.5	(in)
Punchout Length	4	(in)
Yield Strength, Fy	33	(ksi)

GROSS SECTION PROPERTIES (FULL SECTION)

Area (Ag)	0.2890	(in2)
Member weight per foot of length	0.9835	(lb/ft)
Moment of inertia X-X axis (Ix)	0.3020	(in4)
Section Modulus X-X axis (Sxx)	0.2416	(in3)
Radius of gyration X-X Axis (Rx)	1.0222	(in)
Moment of inertia Y-Y axis (Iyy)	0.1110	(in4)
Radius of gyration Y-Y axis (Ry)	0.6197	(in)

EFFECTIVE SECTION PROPERTIES

Moment of inertia for deflection (Ixe)	0.3020	(in4)
Section Modulus (Sxe)	0.2315	(in3)
Allowable Local Buckling Moment (Ma)	4.57	(in-k)
Allowable Distortional Buckling Moment (Ma-d)	4.45	(in-k)
Allowable shear force in web (Va-g)	1265	(lb)
Allowable shear force in web at Punchout (Vanet)	199	(lb)

TORSIONAL PROPERTIES

St. Venant torsional constant (J x 1000)	0.1960	(in4)
Warping Constant (Cw)	0.1843	(in6)
Distance from shear center to neutral axis (Xo)	-1.4573	(in)
Radii of gyration (Ro)	1.8848	(in)
Torsional flexural constant (b)	0.4022	(in)

1.5 (in)

4 (in)