MRI STEEL FRAMING LLC

Corporate Headquarters: 15 Salt Creek Lane, Suite 412 Hinsdale, IL 60521 **P:** 630-616-1850 **F:** 630-568-5979
Production Facility: 201 Mississippi St, Dock #Q40, Gary, IN 46402 **P:** 630-616-1850 **F:** 219-886-3341

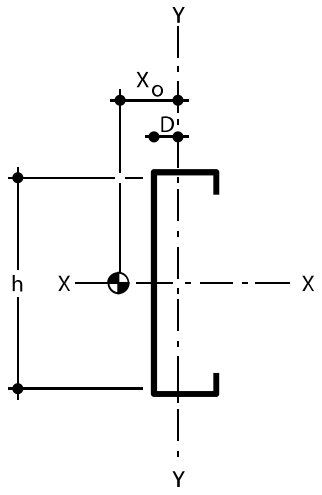
Product Category: 09.22.16 - Non-Structural Metal Framing **Product Name:** 350S125-33

Available Finish: G60
(G40/G90 coatings available upon request)
*Other standard coatings referenced in ASTM A1003
Web Depth: 3-1/2 in
Flange Width: 1-1/4 in
Design Thickness: 0.0346 in
Gauge: 33 mils or 20G ST
Yield stress, Fy: 33 ksi
Weight: 0.72 lb/ft

- Calculated properties are based on AISI S100-16/S2-20, North American Specification for Design of Cold-Formed Steel Structural Members and meets the requirements of the IBC 2021 Building Code.
- The centerline bend radius is based on inside corner radii shown in thickness chart.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties are based on full-unreduced cross section of the studs, away from punchouts.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold-work of forming.

Gross Section Properties

Cross sectional area (A)	0.210 in^2
Moment of inertia (Ix)	0.388 in^4
Section Modulus (Sx)	0.222 in^3
Radius of gyration (Rx)	1.358 in
Gross moment of inertia (Iy)	0.036 in^4
Gross Radius of gyration (Ry)	0.416 in



Effective Section Properties

Moment of inertia for deflection (Ix)	0.382 in^4
Section modulus (Sx)	0.175 in^3
Allowable bending moment (Ma)	3.460 In-k
Allowable bending moment from distortional buckling (Mad)	3.25 In-k
Allowable strong axis shear away from punch-out (Vag)	1024 lb
Allowable strong axis shear at punch out (Vanet)	487 lb

Torsional Properties

St. Venant torsion constant (J x 1000)	0.084 in^4
Warping constant (Cw)	0.087 in^6
Distance from shear center to neutral axis (Xo)	-0.781 in
Distance from shear center to mid-plane of web (m)	0.485 in
Radii of gyration (Ro)	1.621 in
Torsional flexural constant (β)	0.768
Unbraced Length (Lu)	28.6 in

Fully Braced Non-Composite Limiting Heights Table Notes

- 5 psf, 7.5 psf, and 10 psf loads have NOT been reduced for strength or deflection checks.
- Calculated properties are based on AISI S100-16/S2-20, North American Specification for Cold-Formed Steel Structural Members and meets the requirements of the IBC 2021 Building Code.
- Limiting heights are based on continuous support of each flange over the full length of the stud.
- Limiting heights are based on steel properties only (non-composite).
- Web crippling checks are based on end-one flange loading condition using 1-inch end bearing.

Non-Composite Limiting Heights – Fully Braced

Spacing (inches)	5psf L/120	5psf L/240	5psf L/360	7.5psf L/120	7.5psf L/240	7.5psf L/360	10psf L/120	10psf L/240	10psf L/360
12	21'-6"	17'-1"	14'-11"	18'-9"	14'-11"	13'-0"	17'-1"	13'-6"	11'-10"
16	19'-6"	15'-6"	13'-6"	17'-1"	13'-6"	11'-10"	15'-5"	12'-4"	10'-9"
24	17'-1"	13'-6"	11'-10"	14'-6"	11'-10"	10'-4"	12'-7"	10'-9"	9'-4"

Interior Composite Limiting Heights

Spacing (inches)	5psf L/120	5psf L/240	5psf L/360	7.5psf L/120	7.5psf L/240	7.5psf L/360	10psf L/120	10psf L/240	10psf L/360	15psf L/120	15psf L/240	15psf L/360
12	23' 0"	18' 3"	15' 1"	20' 1"	15' 11"	13' 11"	18' 3''	14' 6''	12' 8''	13' 3"	12' 8"	10' 10"
16	20' 11"	16' 7"	14' 6"	18' 3"	14' 6"	12' 8"	16' 7''	13' 2''	11' 4''	11' 6"	11' 4"	9' 8"
24	18' 3"	14' 6"	12' 8"	15' 11"	12' 8"	10' 10"	14' 4''	11' 4''	9' 8''			

Additional Information

MRI Steel Framing, LLC is an SFIA member. MRI acts in accordance with the product and quality standards required by the SFIA program.

MRI meets or exceeds ASTM C645, C745, A653, and A1003.

Current LEED credits available upon request