

Redheader Lite 250RHL250-43 (33ksi, CP60) - As Header

2-1/2" Header stud with 2-1/2" flange for interior openings - Unpunched

Geometric Properties

Web depth: 2.500 in	Flange width: 2.500 in	Return lip: 0.625 in
Thickness: 43mils (18ga)	Design Thickness: 0.0451 in	Min. steel thickness: 0.0428 in
Yield strength, Fy: 33ksi	Coating: CP60	

Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	0.379 in ²
Member weight per foot of length	1.29 lb/ft
Moment of inertia (Ix)	0.426 in ⁴
Section Modulus (Sx)	0.341 in ³
Radius of gyration (Rx)	1.060 in
Moment of inertia (Iy)	0.336 in ⁴
Section modulus (Sy)	0.315 ³
Gross radius of gyration (Ry)	0.941 in

Effective Section Properties

Cross sectional area (Ae)	0.316 in ²
Moment of Inertia about x-axis (Ixe)	0.426 in ⁴
Moment of Inertia about y-axis (Iye)	0.336 in ⁴
Section Modulus about x-axis (Sxe)	0.297 in ³
Section Modulus about y-axis (Sye)	0.235 in ³
Allowable local moment capacity about x-axis (Max-local)	5.87 (in-k)
Allowable local moment capacity about y-axis (May-local)	4.64 (in-k)
Allowable distortional moment capacity about x-axis (Max-dist)	6.24 (in-k)
Allowable distortional moment capacity about y-axis (May-dist)	4.29 (in-k)
Shear strength capacity of section about x-axis (Vax)	1265 lbs
Shear strength capacity of section about y-axis (Vay)	1713 lbs

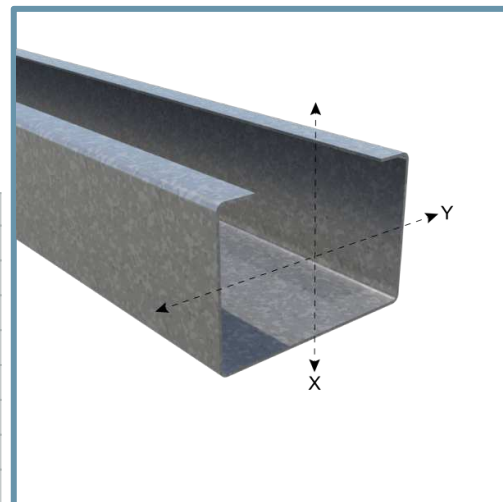
Torsional Properties

St. Venant torsional constant (J x 1000)	0.257 in ⁴
Warping constant (Cw)	0.638 in ⁶
Distance from shear center to the centroid along the principal axis (Xo)	-2.404 in
Distance from shear center to web centerline (m)	1.359 in
Radii of gyration (Ro)	2.794 in
Torsional flexural constant (Beta)	0.258

- Section properties are based on using AIS S100-16/S2-20.
- Moment and Shear capacities about Y-axis listed in unperforated effective section can be used for perforated effective section properties.
- Axial load capacities are based on fully-brace condition.

Code Approvals & Performance Standards

- [AIS S100-16 \(2020\) w/S2-20](#) North American Specification for the Design of Cold-Formed Steel Structural Members
- [AIS S240-20](#) North American Standard for Cold-Formed Steel Structural Framing
 - (Compliant to ASTM C955, but IBC replaced with AISI S200 in IBC 2015, AISI S240 in IBC 2018)
 - Section A3 Material - Chemical & mechanical requirements (Referencing ASTM A1003/A1003M)
 - Section A4 Corrosion Protection (Referencing ASTM A653/A653M)
 - Section C Installation - (Referencing ASTM C1007)
- [SDS For ASTM A1003 Steel Framing Products](#) For Interior Framing, Exterior Framing and Clips/Accessories



Features:

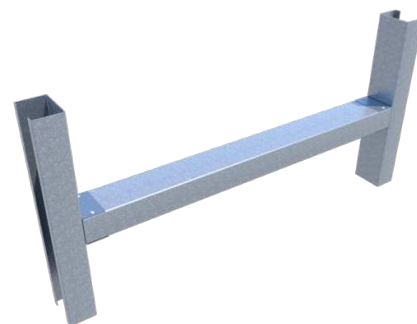
- Replaces lay-in and boxed headers.
- Reduces material pieces, weight & screws.
- Reduces installation time.

Header Brackets:

RedHeader Lite requires the use of the RHLC Header Bracket or EasyClip S-Series clip. Refer to [RedHeader Lite Technical Data](#) to determine the applicable clip for your condition. All headers brackets require the RedHeader Lite to be installed leg up.

Ordering information:

When using the RHLC clip, header lengths should be ordered 1/2" shorter to fit inside RHLC Header Brackets (Header length = inside of jamb to inside of jamb - 1/2").



RedHeader Lite Jamb Stud 250RHL250-43 (33ksi, CP60) - As Jamb

2-1/2" Jamb stud with 2-1/2" for interior openings - Unpunched

Geometric Properties

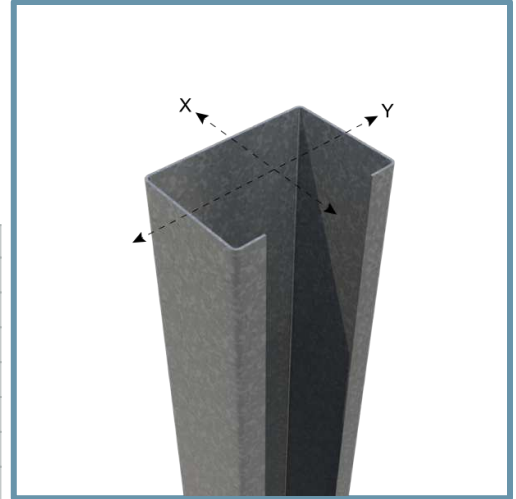
Web depth: 2.500 in **Flange width:** 2.500 in **Return lip:** 0.625 in
Thickness: 43mils (18ga) **Design Thickness:** 0.0451 in **Min. steel thickness:** 0.0428 in
Yield strength, Fy: 33ksi **Coating:** CP60

Gross Section Properties of Full Section, Strong Axis	
Cross sectional area (A)	0.379 in ²
Member weight per foot of length	1.29 lb/ft
Moment of inertia (Ix)	0.426 in ⁴
Section Modulus (Sx)	0.341in ³
Radius of gyration (Rx)	1.060 in
Moment of inertia (Iy)	0.336 in ⁴
Section modulus (Sy)	0.315 ³
Gross radius of gyration (Ry)	0.941 in
Effective Section Properties	
Cross sectional area (Ae)	0.286 in ²
Moment of Inertia about x-axis (Ixe)	0.426 in ⁴
Section Modulus about x-axis (Sxe)	0.297 in ³
Allowable local moment capacity about x-axis (Max-local)	5.87 (in-k)
Allowable distortional moment capacity about x-axis (Max-dist)	6.04 (in-k)
Shear strength capacity of section about x-axis (Vax)	394 lbs
Shear strength capacity of section about y-axis (Vay)	lbs
Torsional Properties	
St. Venant torsional constant (J x 1000)	0.257 in ⁴
Warping constant (Cw)	0.638 in ⁶
Distance from shear center to web centerline (m)	1.359 in
Radii of gyration (Ro)	2.794 in
Torsional flexural constant (Beta)	0.258
Maximum unbraced length (Lu)	66.8 in
Axial Load	
Allowable axial load for section	5.2 kips

- Section properties are based on using AIS S100-16/S2-20.
- Effective section properties are based on a perforated profile.
- Moment and Shear capacities about Y-axis listed in unperforated effective section can be used for perforated effective section properties.
- Axial load capacities are based on fully-brace condition.

Code Approvals & Performance Standards

- [AISI S100-16 \(2020\) w/S2-20](#) North American Specification for the Design of Cold-Formed Steel Structural Members
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- [SDS For ASTM A1003 Steel Framing Products](#) For Interior Framing, Exterior Framing and Clips/Accessories



Features:

- Replaces built-up jambs.
- Reduces material pieces, weight & screws.
- Reduces installation time.

