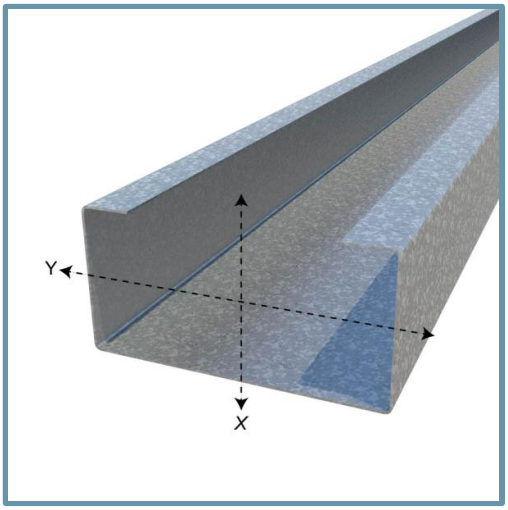
Redheader PRO 600PRO300-33 (33ksi, CP60) - As Header

6" Header stud with 3" flange for structural openings - Unpunched



Geometric Properties

Web depth: 6.000 in
Thickness: 33mils (20ga)
Yield strength, Fy: 33ksi

Flange width: 3.000 in
Design Thickness: 0.0346 in
Coating: CP60

Return lip: 1.000 in
Min. steel thickness: 0.0329 in

Gross Section Properties of Full Section, Strong Axis	
Cross sectional area (A)	0.474 in^2
Member weight per foot of length	1.61 lb/ft
Moment of inertia (Ix)	2.816 in^4
Section Modulus (Sx)	0.939in^3
Radius of gyration (Rx)	2.437 in
Moment of inertia (Iy)	0.652 in^4
Section modulus (Sy)	0.337^3
Gross radius of gyration (Ry)	1.173 in
Effective Section Properties	
Cross sectional area (Ae)	0.229 in^2
Moment of Inertia about x-axis (Ixe)	2.504 in^4
Moment of Inertia about y-axis (Iye)	0.593 in^4
Section Modulus about x-axis (Sxe)	0.653 in^3
Section Modulus about y-axis (Sye)	0.275 in^3
Allowable local moment capacity about x-axis (Max-local)	12.89 (in-k)
Allowable local moment capacity about y-axis (May-local)	5.43 (in-k)
Allowable distortional moment capacity about x-axis (Max-dist)	13.92 (in-k)
Allowable distortional moment capacity about y-axis (May-dist)	5.01 (in-k)
Shear strength capacity of section about x-axis (Vax)	638 lbs
Shear strength capacity of section about y-axis (Vay)	638 lbs
Torsional Properties	
St. Venant torsional constant (J x 1000)	0.189 in^4
Warping constant (Cw)	5.749 in^6
Distance from shear center to the centroid along the principal axis (Xo)	-2.598 in
Distance from shear center to web centerline (m)	1.548 in
Radii of gyration (Ro)	3.750 in
Torsional flexural constant (Beta)	0.520

Features:

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

Ordering Information:

Header lengths should be ordered 1/2" shorter to fit inside HDSC Header Brackets (Header length = inside of jamb to inside of jamb - 1/2")

HDSC Header Bracket profile data:

See HDSC Header Bracket submittal sheet for allowable clip loads. All headers require the attachment of the HDSC Clip at each end with headers installed leg up.

Code Approvals & Performance Standards

- AISI S100-16 (2020) w/S2-20 North American Specification for the Design of Cold-Formed Steel Structural Members
- AISI 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)
- IBC 2021 International Building Code
- IAPMO ER-0723 Evaluation Report for HDS and RedHeader Pro
- SDS For ASTM A1003 Steel Framing Products For Interior Framing, Exterior Framing and Clips/Accessories

RedHeader PRO Jamb Stud 600PRO300-33 (33ksi, CP60) - As Jamb

6" Jamb stud with 3" for structural openings - Unpunched

Geometric Properties

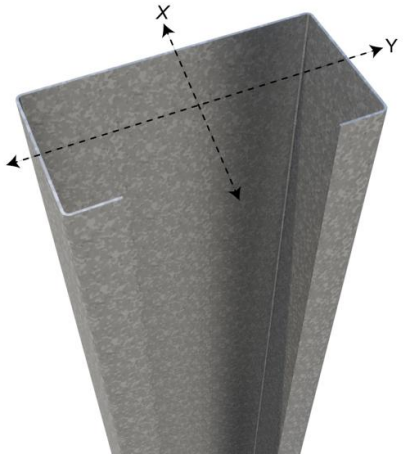
Web depth: 6.000 in
Thickness: 33mils (20ga)
Yield strength, Fy: 33ksi

Flange width: 3.000 in
Design Thickness: 0.0346 in
Coating: CP60

Return lip: 1.000 in
Min. steel thickness: 0.0329 in

Gross Section Properties of Full Section, Strong Axis	
Cross sectional area (A)	0.474 in^2
Member weight per foot of length	1.61 lb/ft
Moment of inertia (Ix)	2.816 in^4
Section Modulus (Sx)	0.939in^3
Radius of gyration (Rx)	2.437 in
Moment of inertia (Iy)	0.652 in^4
Section modulus (Sy)	0.337^3
Gross radius of gyration (Ry)	1.173 in
Effective Section Properties	
Cross sectional area (Ae)	0.208 in^2
Moment of Inertia about x-axis (Ixe)	2.506 in^4
Section Modulus about x-axis (Sxe)	0.652 in^3
Allowable local moment capacity about x-axis (Max-local)	12.89 (in-k)
Allowable distortional moment capacity about x-axis (Max-dist)	13.68 (in-k)
Shear strength capacity of section about x-axis (Vax)	638 lbs
Shear strength capacity of section about y-axis (Vay)	638 lbs
Torsional Properties	
St. Venant torsional constant (J x 1000)	0.189 in^4
Warping constant (Cw)	5.749 in^6
Distance from shear center to web centerline (m)	1.548 in
Radii of gyration (Ro)	3.750 in
Torsional flexural constant (Beta)	0.520
Maximum unbraced length (Lu)	81.1 in
Axial Load	
Allowable axial load for section	3.8 kips

- Axial load capacities are based on full-braced condition (structural elements that are installed to provide full restraint or support, i.e. KL=0)
- Section properties are based on a punched jamb stud.



Features:

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

Code Approvals & Performance Standards

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- AISI 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)
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  - Section C Installation - (Referencing ASTM C1007)
- IBC 2021 International Building Code
- IAPMO ER-0723 Evaluation Report for HDS and RedHeader Pro
- SDS For ASTM A1003 Steel Framing Products For Interior Framing, Exterior Framing and Clips/Accessories