HDS® 600HDS300-33 (33ksi, CP60) - As Header

6" Heavy duty stud with 3" flange for structural openings - Unpunched

Geometric Properties

Web depth: 6.000 in
Flange width (A): 3.000 in
Thickness: 33mils (20ga)

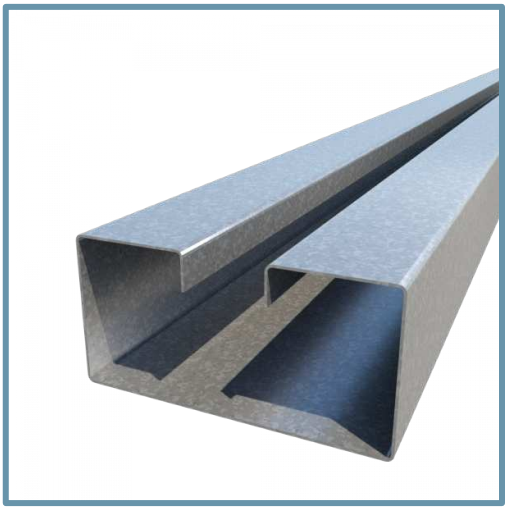
Yield strength, Fy: 33ksi
Return lip (B): 2.250 in
Design Thickness: 0.0346 in

Coating: CP60
Stiffening lip (C): 0.750
Min. steel thickness: 0.0329 in

Gross Section Properties of Full Section, Strong Axis	
Cross sectional area (A)	0.607 in^2
Member weight per foot of length	2.07 lb/ft
Moment of inertia (Ix)	3.016 in^4
Section Modulus (Sx)	1.005in^3
Radius of gyration (Rx)	2.229 in
Moment of inerita (Iy)	0.986 in^4
Section modulus (Sy)	0.657^3
Radius of gyration (Ry)	1.275 in
Effective Section Properties	
Cross sectional area (Ae)	0.198 in^2
Moment of Inertia about x-axis (Ixe)	2.819 in^4
Moment of Inertia about y-axis (Iye)	0.953 in^4
Section Modulus about x-axis (Sxe)	0.705 in^3
Section Modulus about y-axis (Sye)	0.556 in^3
Allowable local moment capacity about x-axis (Max-local)	13.93 (in-k)
Allowable local moment capacity about y-axis (May-local)	10.99 (in-k)
Allowable distortional moment capacity about x-axis (Max-dist)	19.11 (in-k)
Allowable distortional moment capacity about y-axis (May-dist)	12.15 (in-k)
Shear strength capacity of section about x-axis (Vax)	638 lbs
Shear strength capacity of section about y-axis (Vay)	2048 lbs
Torsional Properties	
St. Venant torsional constant (J x 1000)	0.243 in^4
Warping constant (Cw)	24.581 in^6
Distance from shear center to the centroid along the principal axis (Xo)	-3.650 in
Distance from shear center to web centerline (m)	1.548 in
Radii of gyration (Ro)	4.463 in
Torsional flexural constant (Beta)	0.331

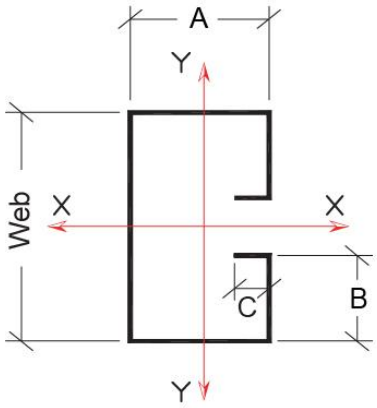
Code Approvals & Performance Standards

- 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



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")

Sustainability Credits For more details and LEED letters contact Technical Services at 888-437-3244 or visit clarkdietrich.com/LEED.

- **LEED v4.1 MR Credit:** Environmental Product Declarations: EPD (1 point) - Sourcing of Raw Materials (up to 2 points) - Material Ingredients (1 point) - Construction and Demolition Waste Management (up to 2 points)
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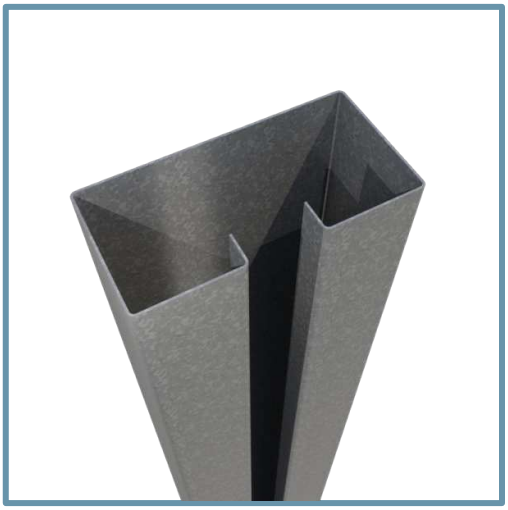

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Moment of Inertia about x-axis (Ixe)	2.819 in^4
Section Modulus about x-axis (Sxe)	0.624 in^3
Allowable local moment capacity about x-axis (Max-local)	12.33 (in-k)
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Distance from shear center to web centerline (m)	1.548 in
Radii of gyration (Ro)	4.463 in
Torsional flexural constant (Beta)	0.331
Maximum unbraced length (Lu)	124.8 in
Axial Load	
Allowable axial load for section	3.6 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:

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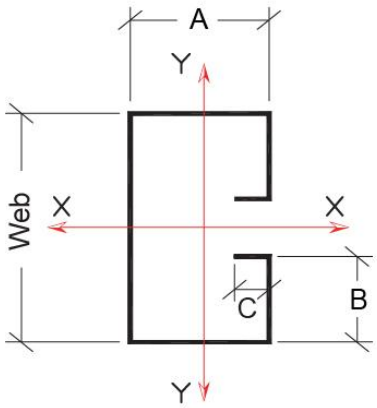

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