

# **Product Submittal Sheet**

Technical Services: 888-437-3244 Engineering Services: 877-832-3206 Sales: 800-543-7140 clarkdietrich.com

Product category: Product name:

PRO350 (3-1/2" flange RedHeader PRO) As Header

800PRO350-54 (50ksi, CP60) - Unpunched

54mils (16ga) Coating: CP60 per ASTM C955

## **Geometric Properties**

Web depth	8.000 in	Design thickness	0.0566 in
Flange width	3.500 in	Min. steel thickness	0.0538 in
Stiffening lip	1.000 in	Yield strength, Fy	50 ksi

# **Gross Section Properties of Full Section, Strong Axis**

Cross sectional area (A)	0.938 in <sup>2</sup>
Member weight per foot of length	3.19 lb/ft
Moment of inertia (Ix)	9.685 in⁴
Section modulus (Sx)	2.421 in <sup>3</sup>
Radius of gyration (Rx)	3.213 in
Gross moment of inertia (ly)	1.646 in <sup>4</sup>
Gross section modulus (Sy)	0.694 in <sup>3</sup>
Gross radius of gyration (Ry)	1.324 in

# **Effective Section Properties, Strong Axis**

Moment of inertia for deflection (Ixe)	9.191 in⁴
Moment of inertia for deflection (lye*)	1.520 in⁴
Section modulus (Sxe)	1.869 in <sup>3</sup>
Section modulus (Sye*)	0.628 in <sup>3</sup>
Allowable bending moment (Max - Local)	55.97 in-k
Allowable bending moment (May - Local*)	18.81 in-k
Allowable bending moment (Max - Distortional)	49.75 in-k
Allowable bending moment (May - Distortional*)	14.26 in-k
Allowable shear force in web (Vax)	2091 lb

# **Torsional Properties**

St. Venant torsion constant (J x 1000)	1.002 in <sup>4</sup>
Warping constant (Cw)	22.897 in <sup>6</sup>
Distance from shear center to neutral axis (Xo)	-2.766 in
Radii of gyration (Ro)	4.442 in
Torsional flexural constant (Beta)	0.612

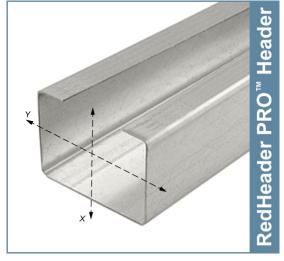
### **Section Property Notes**

\* Iye, Sye, and May are for a positive moment with the return lips in compression. (Installing the header with the flanges pointing up)

#### **ASTM & Code Standards:**

- AISI S100-12 and S100-07 w/S2-10 supplements
- Effective properties incorporate the strength increase from cold work of forming
- Structural framing is produced to meet or exceed ASTM C955
- Sheet steel meets or exceeds mechanical and chemical requirements of ASTM A1003
- SDS & Product Certification Information is available at www.clarkdietrich.com

## 05.40.00 (Cold-Formed Metal Framing)



- · Replaces lay-in and boxed headers.
- · Reduces material pieces, weight & screws.
- Insulation installs quicker.

#### **Ordering Information:**

Header lengths should be ordered  $\frac{1}{2}$ " shorter to fit inside HDSC Header Brackets. (Header length = inside of jamb to inside of jamb -  $\frac{1}{2}$ ")

## **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.

#### **Sustainability Credits:**

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

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

LEED 2009 Credit MR 2 & MR 4 -- Clark Dietrich's steel products are 100% recyclable and have a national average recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at (info@clarkdietrich.com / 888-437-3244)

Project Information	Contractor Information	Architect Information
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