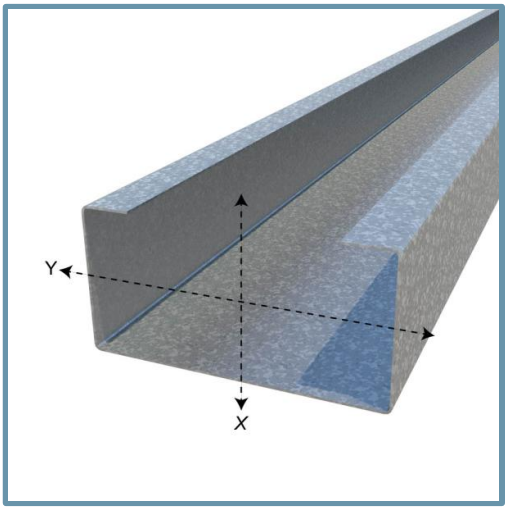
# Redheader PRO 362PRO300-54 (50ksi, CP60) - As Header

**3-5/8" Header stud with 3" flange for structural openings - Unpunched**




## Geometric Properties

**Web depth:** 3.625 in
**Thickness:** 54mils (16ga)
**Yield strength, Fy:** 50ksi

**Flange width:** 3.000 in
**Design Thickness:** 0.0566 in
**Coating:** CP60

**Return lip:** 1.000 in
**Min. steel thickness:** 0.0538 in

| Gross Section Properties of Full Section, Strong Axis | |
|---|---|
| Cross sectional area (A) | 0.634 $in^2$ |
| Member weight per foot of length | 2.16 lb/ft |
| Moment of inertia (Ix) | 1.433 $in^4$ |
| Section Modulus (Sx) | 0.791$in^3$ |
| Radius of gyration (Rx) | 1.503 in |
| Moment of inertia (Iy) | 0.863 $in^4$ |
| Section modulus (Sy) | 0.504$^3$ |
| Gross radius of gyration (Ry) | 1.167 in |
| **Effective Section Properties** | |
| Cross sectional area (Ae) | 0.458 $in^2$ |
| Moment of Inertia about x-axis (Ixe) | 1.361 $in^4$ |
| Moment of Inertia about y-axis (Iye) | 0.842 $in^4$ |
| Section Modulus about x-axis (Sxe) | 0.656 $in^3$ |
| Section Modulus about y-axis (Sye) | 0.451 $in^3$ |
| Allowable local moment capacity about x-axis (Max-local) | 19.64 (in-k) |
| Allowable local moment capacity about y-axis (May-local) | 13.51 (in-k) |
| Allowable distortional moment capacity about x-axis (Max-dist) | 20.20 (in-k) |
| Allowable distortional moment capacity about y-axis (May-dist) | 12.86 (in-k) |
| Shear strength capacity of section about x-axis (Vax) | 3372 lbs |
| Shear strength capacity of section about y-axis (Vay) | 2823 lbs |
| **Torsional Properties** | |
| St. Venant torsional constant (J x 1000) | 0.677 $in^4$ |
| Warping constant (Cw) | 3.829 $in^6$ |
| Distance from shear center to the centroid along the principal axis (Xo) | -2.953 in |
| Distance from shear center to web centerline (m) | 1.695 in |
| Radii of gyration (Ro) | 3.513 in |
| Torsional flexural constant (Beta) | 0.293 |

## 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")

### 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.

# RedHeader PRO Jamb Stud 362PRO300-54 (50ksi, CP60) - As Jamb

**3-5/8" Jamb stud with 3" for structural openings - Unpunched**

## Geometric Properties

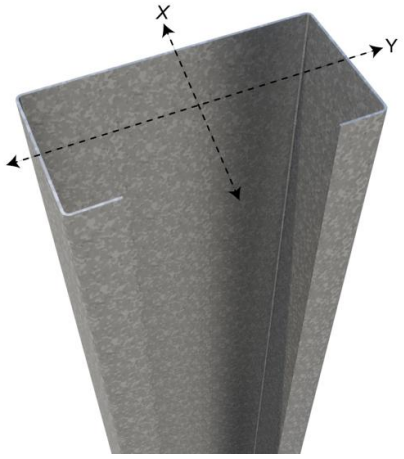
**Web depth:** 3.625 in
**Thickness:** 54mils (16ga)
**Yield strength, Fy:** 50ksi

**Flange width:** 3.000 in
**Design Thickness:** 0.0566 in
**Coating:** CP60

**Return lip:** 1.000 in
**Min. steel thickness:** 0.0538 in

| Gross Section Properties of Full Section, Strong Axis | |
|---|---|
| Cross sectional area (A) | 0.634 $in^2$ |
| Member weight per foot of length | 2.16 lb/ft |
| Moment of inertia (Ix) | 1.433 $in^4$ |
| Section Modulus (Sx) | 0.791$in^3$ |
| Radius of gyration (Rx) | 1.503 in |
| Moment of inertia (Iy) | 0.863 $in^4$ |
| Section modulus (Sy) | 0.504$^3$ |
| Gross radius of gyration (Ry) | 1.167 in |
| **Effective Section Properties** | |
| Cross sectional area (Ae) | 0.413 $in^2$ |
| Moment of Inertia about x-axis (Ixe) | 1.361 $in^4$ |
| Section Modulus about x-axis (Sxe) | 0.624 $in^3$ |
| Allowable local moment capacity about x-axis (Max-local) | 18.67 (in-k) |
| Allowable distortional moment capacity about x-axis (Max-dist) | 19.72 (in-k) |
| Shear strength capacity of section about x-axis (Vax) | 1016 lbs |
| Shear strength capacity of section about y-axis (Vay) | 2823 lbs |
| **Torsional Properties** | |
| St. Venant torsional constant (J x 1000) | 0.677 $in^4$ |
| Warping constant (Cw) | 3.829 $in^6$ |
| Distance from shear center to web centerline (m) | 1.695 in |
| Radii of gyration (Ro) | 3.513 in |
| Torsional flexural constant (Beta) | 0.293 |
| Maximum unbraced length (Lu) | 70.0 in |
| **Axial Load** | |
| Allowable axial load for section | 11.5 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

- 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)
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- SDS For ASTM A1003 Steel Framing Products For Interior Framing, Exterior Framing and Clips/Accessories