

Product category: HS300 (3" flange RedHeader RO - Header Stud)
Product name: 587HS300-54 (50ksi, G60) - Unpunched
54mils (16ga) Finish: G60

Geometric Properties

Web depth	5.875 in	Design thickness	0.0566 in
Flange width	3.000 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)	0.762 in ²
Member weight per foot of length	2.590 lb/ft
Moment of inertia (Ix)	4.309 in ⁴
Section modulus (Sx)	1.467 in ³
Radius of gyration (Rx)	2.379 in
Gross moment of inertia (Iy)	1.031 in ⁴
Gross section modulus (Sy)	0.412 in ³
Gross radius of gyration (Ry)	1.163 in

Effective Section Properties, Strong Axis

Moment of inertia for deflection (Ixe)	3.887 in ⁴
Moment of inertia for deflection (Iye*)	0.953 in ⁴
Section modulus (Sxe)	1.240 in ³
Section modulus (Sye*)	0.482 in ³
Allowable bending moment (Max)	37.13 in-k
Allowable bending moment (May*)	14.43 in-k
Allowable shear force in web (Vax)	2885 lb
Allowable shear force in web (Vay**)	5767 lb

Torsional Properties

St. Venant torsion constant (J x 1000)	0.813 in ⁴
Warping constant (Cw)	8.663 in ⁶
Distance from shear center to neutral axis (Xo)	-2.623 in
Radii of gyration (Ro)	3.727 in
Torsional flexural constant (Beta)	0.505

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)
- ** Vay value is for (1) flange; in most header assemblies, both flanges are engaged.

ASTM & Code Standards:

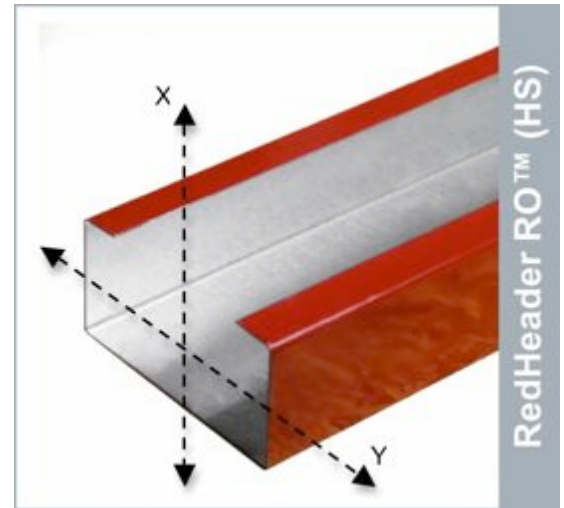
- 2001 North American Specification [NASPEC] with the 2004 Supplement
- Effective properties incorporate the strength increase from cold work of forming
- Design for interior sections (-33mil and -43mil) shall be based on Direct Strength Method, with an additional 10% reduction of the allowable loads generated by DSM.
- Structural framing is produced to meet or exceed ASTM C955, A653 and A1003
- Galvanized sheet steel meets or exceeds requirements of ASTM A924
- MSDS & Product Certification Information is available at www.clarkwestern.com

GREEN Benefits and Recycled Content:

LEED Credit MR 2 - ClarkWestern products are manufactured from cold-formed steel. Steel is 100% recyclable, which helps divert debris from the waste stream. The contribution to LEED must be calculated by the contractor based on weight or volume.

LEED Credit MR 4 - LEED allows for steel products to use a default value of 25% post-consumer recycled content without additional documentation. If you wish to report a higher number for your project or seek Credit MR 5 please contact Tech Support at 888-437-3244 or visit www.clarkwestern.com

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

Ordering Information:

Header lengths should be ordered ½" shorter to fit inside Drop'N Lock Clips.
(Header length = inside of jamb to inside of jamb - ½")

Other Available RedHeader RO Systems

Available in 3-5/8", 4", 6" & 8" deep systems w/ 3" or 3-1/2" flanges.
Thicknesses from 33mils(20gauge) to 97mils(12gauge) w/ G60 or G90

Drop'N Lock Clip profile data:

See Drop'N Lock Clip submittal sheet for allowable clip loads. All headers require the attachment of the Drop'N Lock Clip at each end with headers installed leg up.

Project Information

Name:
Address:

Contractor Information

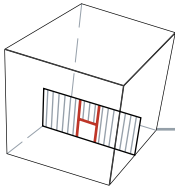
Name:
Contact:
Phone:
Fax:

Architect Information

Name:
Contact:
Phone:
Fax:

RedHeader RO™ - Drop 'N Lock™ Clip profile data:

- Clip widths: 3-5/8," 4," 6" and 8"
- Clip height: 3"
- Clip thickness:
 - Interior Framing: 20ga. (33 mils)
 - Exterior Framing: 14ga. (68 mils)
- All clip material: 50ksi, G90 material



Interior Framing:

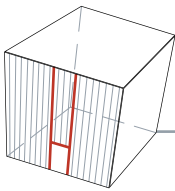
Clip sizes:

Framing size	Thickness (gauge) mils	Clip name	Clips per box
3-5/8"	(20ga) 33 mils	Drop 'N Lock Clip 362-33	24
4"	(20ga) 33 mils	Drop 'N Lock Clip 400-33	24
6"	(20ga) 33 mils	Drop 'N Lock Clip 600-33	24
8"	(20ga) 33 mils	Drop 'N Lock Clip 800-33	16

Allowable loads (lbs.)

Drop 'N Lock Clip values	Screw Pattern	Header or jamb material (min. thickness)			
		20ga (33mils)		18ga (43mils)	
		Horizontal	Vertical	Horizontal	Vertical
Drop 'N Lock Clip 362-33	2/2	180	250	180	250
	4/6	445	592	445	592
Drop 'N Lock Clip 400-33	2/2	199	273	199	273
	4/6	462	569	462	569
Drop 'N Lock Clip 600-33	2/2	192	285	192	285
	4/6	413	593	413	593
Drop 'N Lock Clip 800-33	2/2	8" members not available in 20ga		213	324
	4/6	8" members not available in 20ga		601	663

Interior clip loads are based on using #8 screws.



Exterior Framing:

Clip sizes:

Framing size	Thickness (gauge) mils	Clip name	Clips per box
3-5/8"	(14ga) 68 mils	Drop 'N Lock Clip 362-68	24
4"	(14ga) 68 mils	Drop 'N Lock Clip 400-68	24
6"	(14ga) 68 mils	Drop 'N Lock Clip 600-68	24
8"	(14ga) 68 mils	Drop 'N Lock Clip 800-68	16

Allowable loads (lbs.)

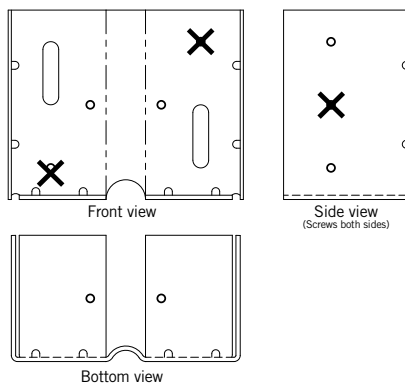
Drop 'N Lock Clip values	Screw Pattern	Header or jamb material (min. thickness)					
		20ga(33mils) & 18ga(43mils)		16ga (54mils)		14ga(68mils) & 12ga(97mils)	
		Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
Drop 'N Lock Clip 362-68	2/2	227	447	486	625	593	717
	4/6	565	1089	1196	1803	1232	1837
Drop 'N Lock Clip 400-68	2/2	296	470	503	565	578	745
	4/6	589	1060	929	1807	1227	1644
Drop 'N Lock Clip 600-68	2/2	193	303	529	501	610	672
	4/6	630	958	1239	1765	1568	1908
Drop 'N Lock Clip 800-68	2/2	275*	321*	533	496	594	688
	4/6	880*	1542*	1211	1785	1315	1875

Exterior clip loads are based on using #10 screws.

* 8" members not available in (20ga) 33mil thickness

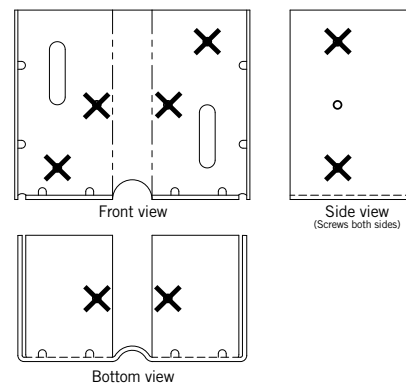
Screw pattern: 2/2

2 in Jamb, 2 in Header



Screw pattern: 4/6

4 in Jamb, 6 in Header



Product category: JS300 (3" flange RedHeader RO - Jamb Stud)
Product name: 600JS300-54 (50ksi, G60) - Punched
54mils (16ga) Finish: G60

Geometric Properties

Web depth	6.000 in	Design thickness	0.0566 in
Flange width	3.000 in	Min. steel thickness	0.0538 in
Stiffening lip	0.875 in	Yield strength, Fy	50 ksi

Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	0.754 in ²
Member weight per foot of length	2.57 lb/ft
Moment of inertia (Ix)	4.462 in ⁴
Section modulus (Sx)	1.487 in ³
Radius of gyration (Rx)	2.432 in
Gross moment of inertia (Iy)	0.986 in ⁴
Gross section modulus (Sy)	0.405 in ³
Gross radius of gyration (Ry)	1.143 in

Effective Section Properties, Strong Axis

Moment of inertia for deflection (Ixe)	4.048 in ⁴
Section modulus (Sxe)	1.264 in ³
Allowable bending moment (Max)	37.84 in-k
Allowable shear force in web (Vax)	2822 lb

Torsional Properties

St. Venant torsion constant (J x 1000)	0.806 in ⁴
Warping constant (Cw)	8.042 in ⁶
Distance from shear center to neutral axis (Xo)	-2.516 in
Radii of gyration (Ro)	3.681 in
Torsional flexural constant (Beta)	0.533

Other Available RedHeader RO Systems

Available in 3-5/8", 4", 6" & 8" deep systems w/ 3" or 3-1/2" flanges.
Thicknesses from 33mils(20gauge) to 97mils(12gauge) w/ G60 or G90

ASTM & Code Standards:

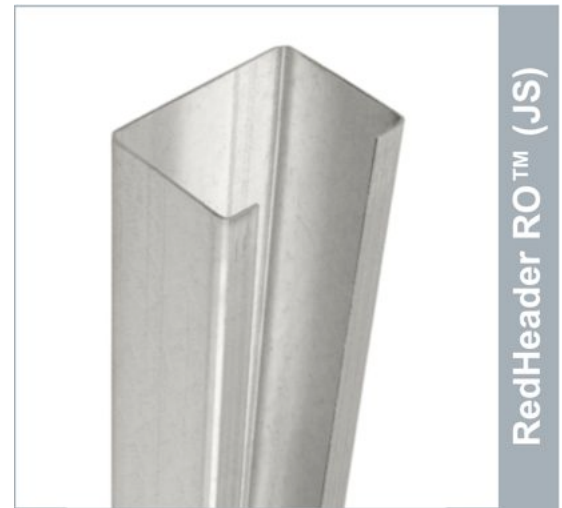
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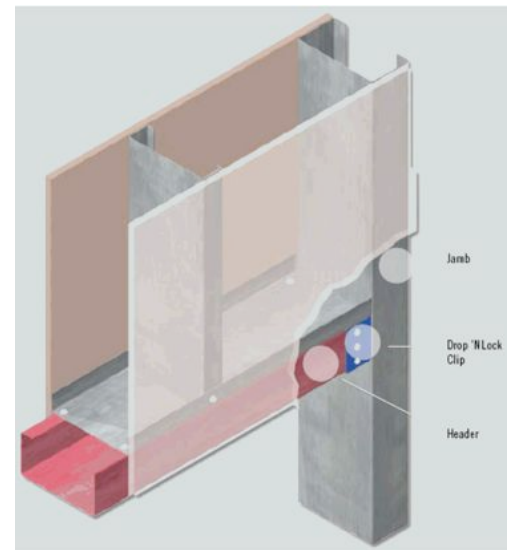
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- Eliminates and/or minimizes built-up jambs.
- Reduces material pieces, weight & screws.
- Opened jamb does not require pre-insulating.



RedHeader RO™ System

CW-JS © 04/09 ClarkWestern Building Systems, Inc.

Project Information

Name:
Address:

Contractor Information

Name:
Contact:
Phone:
Fax:

Architect Information

Name:
Contact:
Phone:
Fax: