

**Product category:** R-stud 33 mil Load Bearing Stud  
**Product name:** 600RS162-33 50 Ksi G60  
6" x 1-5/8" R-stud

Coating: G60  
Color coding: White

### Geometric Properties

Web depth	6.000 in	Weight	0.9984 lb/ft
Flange width	1.625 in	Web opening length	9-13/16 in
Stiffening lip	0.500 in	Web opening width	2-3/16 in
Design thickness	0.030 in	Minimum thickness	0.0329 in
Yield stress, Fy	50 Ksi		

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

Cross sectional area (A)	0.29365 in <sup>2</sup>
Moment of inertia (Ix)	1.6016 in <sup>4</sup>
Radius of gyration (Rx, r1)	2.3354 in
Moment of inertia (Iy)	0.0899 in <sup>4</sup>
Radius of gyration (Ry, r2)	0.5534 in
Max bending moment Ix (Maxo)	13.867 k-in
Max bending moment Iy (Mayo)	2.345 k-in
Allowable shear force in web (Vax)	1.5696 k

### Tension/Compression Properties\*

Warping constant (Cw)	0.038983 in <sup>6</sup>
Distance from shear center to neutral axis (Xo*)	-0.8892 in
Radii of gyration (Ro)	2.5595 in
Torsional flexural constant (Beta)	FEA-in <sup>4</sup>
Compression Pao (max)	6.3574 k
Tension Tao (Ta)	9.0823 k
Unbraced Length (Lu)	Full / Non-braced
Fully Braced Strength (CFS) *CFS result	

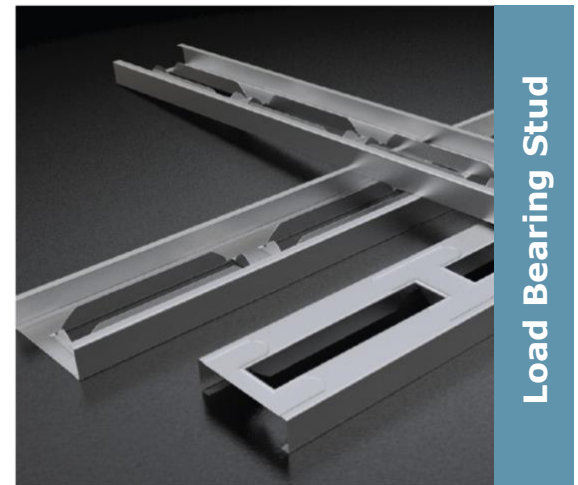
### Notes:

- Calculated properties are based on AISI S100-12, North American Specifications for Cold-Formed Steel Structure Members and ICC-ES AC46-2015, Acceptance Criteria for Cold-Formed Steel Framing Members.
- Effective properties herein incorporate the increased strength from cold working of the steel while forming. We only use 50Ksi coils.
- Tabulated gross properties, including torsional properties, are based on the added cross section properties of the web openings. R-studs do not have punch-outs.
- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on K-phi=0
- For deflection calculations, use the effective moment of inertia.
- Web openings are every 12 inches and are 9-13/16 inches long with flanges being 0.94 inches tall and corners of the web openings enhanced.

**Sustainability:** R-stud sources its steel coils from American Suppliers, such as US Steel and NUCOR's California Steel Industries for rolling in our manufacturing facilities. Our coils contain approximately 34.2% recycled steel. Approximately 19.8% is Post-consumer content, while Pre-consumer content is approximately 14.4%. R-studs are listed as "Red List Free" by the International Living Future Institute. Steel is one of the most sustainable building materials in the world. It is recycled content, recyclable, durable, safe, zinc-coated, dimensionally stable and strong, as well as not susceptible to rot, termites, or mold.

### Supported Documentation

- 2016 AISI - ASD, LRFD, and LSD
- 2012 AISI - ASD, LRFD, and LSD
- 2010 AISI - ASD, LRFD, and LSD
- 2007 AISI - ASD, LRFD, and LSD
- 2004 AISI - ASD, LRFD, and LSD
- 2001 AISI - ASD, LRFD, and LSD
- 1999 AISI - ASD and LRFD & 2002 ASCE - ASD and LRFD (stainless steel)



Web openings (not punch-outs) formed from web every 12 in. with Stamping at bridge every 12 in.

### ASTM & Code Standards:

- ✓ ICC-NTA ESR
- ✓ ICC-ES 4510
- ✓ IBC 2012 Compliant
- ✓ AISI S902-08 & S909-13
- ✓ AISI A370-17 & S100-12
- ✓ ASTM AC46, C645, & C745
- ✓ UL Two Hour Load Bearing Fire
- ✓ US, Canadian, and International Patents Issued

<b>Project Information</b> Name: Address:	<b>Contractor Information</b> Name: Contact: Phone: Fax:	<b>Architect Information</b> Name: Contact: Phone: Fax:
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