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# **Product Data Sheet**

U.S. Patent # US7866112 U.S. Patent # US7743578 U.S. Patent # US8424266

Product category: R-stud 54 mil Load Bearing Stud

**Product name:** 600RS162-54 50Ksi G60

6.000" R-stud

Coating: G90 Color coding: Green

### **Geometric Properties**

Web depth 6.000-in Weight 1.980-lb/ft\* Flange width 1.625-in Web opening length 9-13/16-in Stiffening lip 0.625-in Web opening width 2-3/16-in Design thickness 0.054-in Minimum thickness 0.054mil

Yield stress, Fy 50-Ksi

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

Cross sectional area (A\*) 0.56145-in^2 2.9310-in^4 Moment of inertia (lx\*) Radius of gyration (Rx, r1\*) 2.2848-in Moment of inertia (ly\*) 0.1714-in^4 Radius of gyration (Ry, r2\*) 0.5362-in Max bending moment Ix-(Maxo\*) 33.231-k-in Max bending moment Iy-(Maxo\*) 5.2591-k-in Allowable shear force in web (Vax\*) 3.418-k

### **Tension/Compression Properties**

Warping constant (Cw\*)

Distance from shear center to neutral axis (Xo\*)

Radii of gyration (Ro\*)

Torsional flexural constant (Beta)

Compression Pao(max\*)

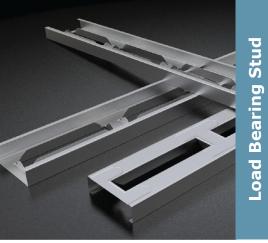
Tension Tao (Ta\*)

Unbraced Length (Lu)

Full / Non-braced

Fully Braced Strength (CFS)

\*CFS result



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

#### ASTM & Code Standards:

- ✓ ICC-NTA ESR
- / IBC 2012 Compliant
- ✓ AISI S-100 & S220-11
- ✓ ASTM E119, E72, E90
- ✓ ASTM AC86, C645, & C745
- ✓ UL 263

#### **Notes:**

- Calculated properties are based on Supported specifications.
- Effective properties herein incorporate the increased strength from cold working of the steel while forming. We only use 50Ksi coils.
- Tabulated properties, including torsional properties, are based on the added cross section properties of the web openings and indents as R-studs do not have punch-outs.
- Maxo Allowable moment includes cold work of forming.
- Maxo Allowable moment is taken as the maximum value based on local or distortional buckling.
- For deflection calculations use the moment of inertia.
- Web opening is every 12 inches and are 9-13/16 inches long with flanges opening out of web. Corners of the web openings are enhanced with flared corner reliefs.

**Sustainability:** R-stud sources its steel coils from USS-POSCO in Pittsburg, California for rolling in our manufacturing facility in Donald, Oregon. Our coils contain approximately 34.2% recycled steel. Approximately 19.8% is Post-consumer content, while Preconsumer content is approximately 14.4%. Steel is one of the most sustainable building materials in the world. It is recycled, 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)

**Project Information** 

Name: Address: **Contractor Information** 

Name: Contact: Phone: Fax: **Architect Information** 

Name: Contact: Phone: Fax:



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**Product category:** R-stud Drywall Stud 600RS200-54 50Ksi G60

6" 2.000" R-stud

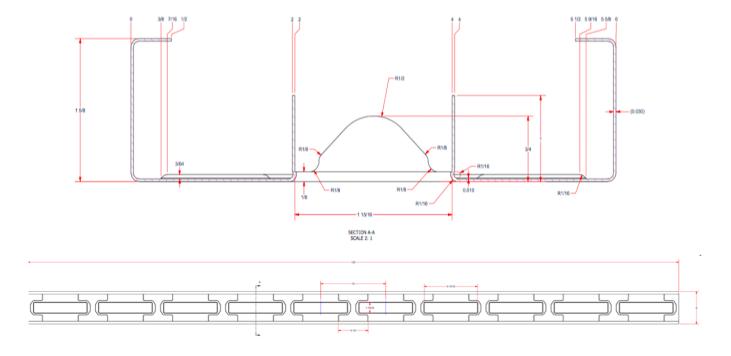
## **Limiting Wall Heights**

Spacing (inches)	5 psf			7.5 psf			10 psf		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
-	-	-	-	-	-	-	-	-	-
16	40′11″	36′5″	33′2″	33′6″	29′3″	26'6"	28'6"	25′7″	22′4″
24	36′3″	32′9″	29′1″	29′7″	25′7″	22′4″	26′5″	22′6″	19'6"

#### Table Notes:

- Allowable composite limiting heights were determined from AC86-2012 testing by Intertek Testing / Architectural Testing, Inc.
- The composite limiting heights tables provided above are based on a single layer of Type X gypsum board from the following manufacturers, American, CertainTeed, Georgia Pacific, National, PABCO, and USG.
- They gypsum is to be applied full height in the vertical orientation to each stud flange and installed in accordance with ASTM C754-2004 using a minimum of No. 6 Type S Drywall spaced as listed below:
- Screws spaced a minimum of 16 inches on-center to framing members spaced at 12 or 16 inches on-center.
- Screws spaced a minimum of 12 inches on-center to framing members spaced at 24 inches on-center.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754-2008.

#### **Profile**



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Name: Contact: Phone: Fax: **Architect Information** 

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