

# Product Data Sheet

U.S. Patent # US7866112

U.S. Patent # US7743578

U.S. Patent # US8424266

# R-stud

## SUSTAINABLE FRAMING

**Product category:** R-stud 30 mil drywall stud

**Product name:** 362RS162-30 50Ksi G60

3-5/8" x 1-1/4" R-stud

Coating: G60

Color coding: White

### Geometric Properties

Web depth	3.625 in	Weight	0.81328 lb/ft
Flange width	1.250 in	Web opening width	9-13/16 In
Stiffening lip	0.310 in	Web opening length	2-3/16 in
Design thickness	0.0312 in	Minimum thickness	0.0346
Yield stress, Fy	50 Ksi		

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

Cross sectional area (A)	0.23920 in <sup>2</sup>
Moment of inertia (Ix)	0.53679 in <sup>4</sup>
Radius of gyration (Rx, r1)	1.4980 in
Moment of inertia (Iy)	0.07535 in <sup>4</sup>
Radius of gyration (Ry, r2)	0.5612 in
Max bending moment Ix (Maxo)	7.6606 k-in
Max bending moment Iy (Mayo)	2.9311 k-in
Allowable shear force in web (Vax)	1.9841 k

### Tension/Compression Properties

Warping constant (Cw)	0.012327 in <sup>6</sup>
Distance from shear center to neutral axis (Xo)	-0.9665 in
Radii of gyration (Ro)	1.9961 in
Torsional flexural constant (Beta)	FEA-in <sup>4</sup>
Compression Pao (max)	4.7349 k
Tension Tao (Ta)	8.3720 k

Unbraced Length (Lu) full / Non-braced

Fully Braced Strength (CFS)

\*CFS result

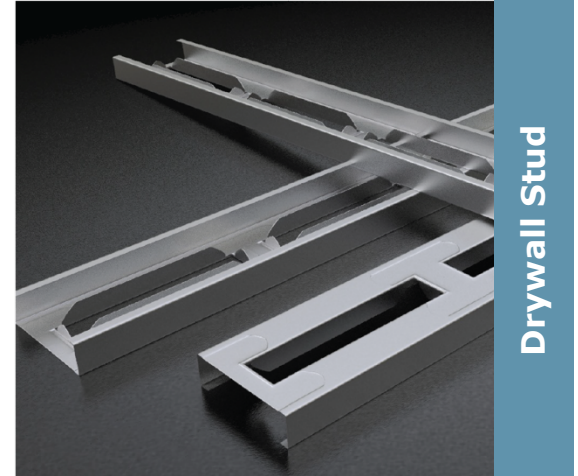
### Notes:

- Calculated properties are based on AISI S100-07, North American Specifications for Cold-Formed Steel Structure Members and AISI S200-11, North American Standard for Cold-Formed Steel Framing – Nonstructural 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-stud's 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 opening 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** Our coils contain approximately 34.2% recycled steel. Approximately 19.8% is Post-consumer content, while Pre-consumer content is approximately 14.4%. 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.

### Supporting 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



Drywall Stud

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

### ASTM & Code Standards:

- ✓ ATI/Intertek CCRR 1073
- ✓ IBC 2012 Compliant
- ✓ UL263
- ✓ AISI S-100 & S220-11
- ✓ ASTM E119, E72, E90
- ✓ ASTM AC86, C645, & C745
- ✓ U.S. Patent Numbers:  
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### Project Information

Name:  
Address:

### Contractor Information

Name:  
Contact:  
Phone:  
Fax:

### Architect Information

Name:  
Contact:  
Phone:  
Fax:

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## SUSTAINABLE FRAMING

- 2001 AISI - ASD, LRFD, and LSD
- 1999 AISI - ASD and LRFD, and 2002 ASCE - ASD and LRFD (stainless)

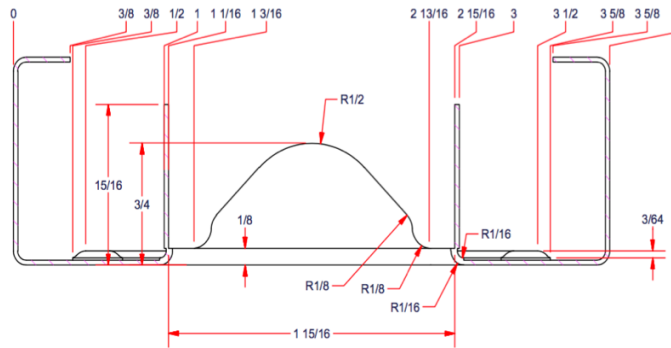
**Product category:** R-stud 30 Mil Drywall Stud  
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 3-5/8" x 1-1/4 R-Stud

### Limiting Wall Heights

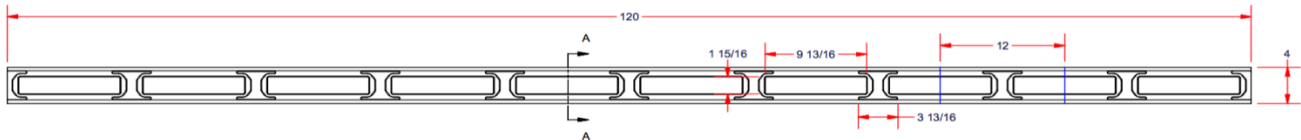
Spacing (inches)	5 psf			7.5 psf			10 psf		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
16	24'-0"	19'-1"	16'-8"	21'-0"	16'-8"	14'-7"	19'-1"	15'-2"	13'-3"
24	21'-0"	16'-8"	14'-7"	18'-4"	14'-7"	12'-9"	16'-8"	13'-3"	11'-7"

#### 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



SECTION A-A  
SCALE 1.5:1



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