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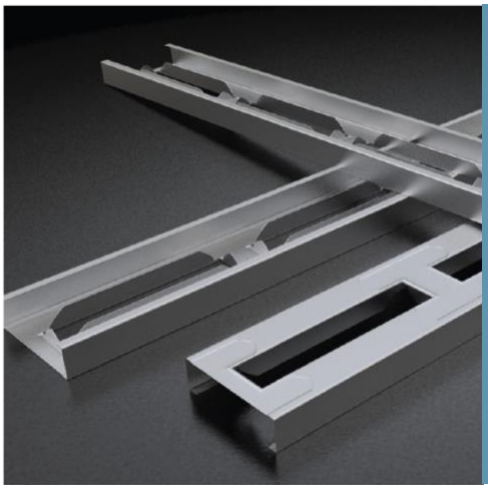
Product Data Sheet

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

Product category: R-stud 60 mil Load Bearing Stud
Product name: 600RS200-60 50KSI G90
6" x 2" R-stud

Coating: G90
Color coding: Orange



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

Geometric Properties

Web depth	6.000 in	Weight	2.213 lb/ft
Flange width	2.00 in	Web opening width	2.0 in
Stiffening lip	0.500 in	Web opening length	9-13/16 in
Design thickness	0.0600 in	Minimum thickness	0.0575 in
Yield stress, Fy	50 Ksi		

Gross Section Properties of Full Section, Strong Axis*

Cross sectional area (A)	0.63260 in^2
Moment of inertia (Ix)	3.5693 in^4
Radius of gyration (Rx, r1)	2.3753 in
Moment of inertia (Iy)	0.2999 in^4
Radius of gyration (Ry, r2)	0.6886 in
Max bending moment Ix (Maxo)	38.330 k-in
Max bending moment Iy (Mayo)	8.189 k-in
Allowable shear force in web (Vax)	4.499 k

Tension/Compression Properties*

Warping constant (Cw)	0.098345 in^6
Distance from shear center to neutral axis (Xo)	-0.9819 in
Radii of gyration (ro)	2.6609 in
Torsional flexural constant (Beta)	FEA-in^4
Compression Pao (max)	18.333 k
Tension Tao (Ta)	22.141 k
Unbraced Length (Lu)	Full / Non-braced

Fully Braced Strength (CFS) *CFS result

ASTM & Code Standards:

- ✓ ICC-NTA ESR
- ✓ IBC 2012 Compliant
- ✓ AISI S902-08 & S909-13
- ✓ AISI A370-17 & S100-12
- ✓ ASTM AC46, C645, & C745
- ✓ UL Two Hour Load Bearing Fire

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 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 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.

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

Project Information	Contractor Information	Architect Information
Name:	Name:	Name:
Address:	Contact:	Contact:
	Phone:	Phone:
	Fax:	Fax: