

## 362S162-54-P (50ksi, CP60, Punched)

**3-5/8" structural stud with S162 (1-5/8") flange - 54mils (16ga)**

**Coating:** CP60 per AISI S240

**Color Code:** Green

### Geometric Properties

**Web depth:** 3.625 in

**Thickness:** 54mils (16ga)

**Yield strength,  $F_y$ :** 50 ksi

**Flange width:** 1.625 in

**Design Thickness:** 0.0566 in

**\* $F_y$  with Cold-Work,  $F_{ya}$ :** 50.0 ksi

**Stiffening lip:** 0.500 in

**Min. steel thickness:** 0.0538 in

**Ultimate,  $F_u$ :** 65.0 ksi

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

Cross sectional area (A)	0.422 in <sup>2</sup>
Member weight per foot of length	1.44 lb/ft
Moment of inertia (Ix)	0.873 in <sup>4</sup>
Section Modulus (Sx)	0.482 in <sup>3</sup>
Radius of gyration (Rx)	1.438 in
Gross moment of inertia (Iy)	0.154 in <sup>4</sup>
Gross radius of gyration (Ry)	0.605 in

#### Effective Section Properties, Strong Axis

Effective Area (Ae)	0.296 in <sup>2</sup>
Moment of inertia for deflection (Ix)	0.873 in <sup>4</sup>
Section modulus (Sx)	0.444 in <sup>3</sup>
Allowable bending moment (Ma)	13.28 in-k
Allowable moment based on distortion buckling (Mad)	12.94 in-k
Allowable shear force in web (solid section)	3372 lb
Allowable shear force in web (perforated section)	1016 lb
Unbraced length (Lu)	34.4 in

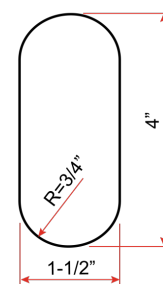
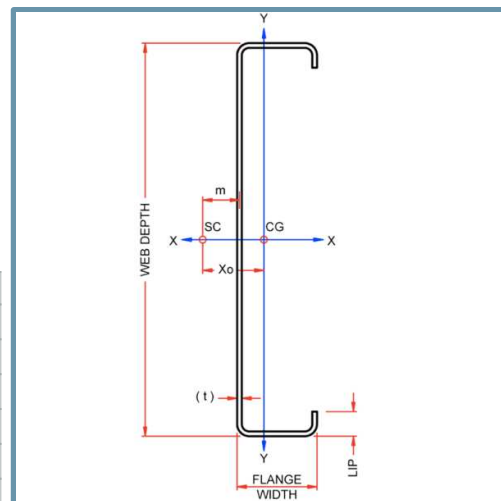
#### Torsional Properties

St. Venant torsional constant (J x 1000)	0.451 in <sup>4</sup>
Warping constant (Cw)	0.457 in <sup>6</sup>
Distance from shear center to neutral axis (Xo)	-1.283 in
Distance between shear center and web centerline (m)	0.774 in
Radius of gyration (Ro)	2.020 in
Torsional flexural constant (Beta)	0.597

- Effective properties incorporate the strength increase from the cold work of forming.
- Gross properties are based on the cross section away from the punchouts.
- Effective properties are based on knockout/punched sections.

### Code Approvals & Performance Standards

- **AISI S100-16 (2020) w/S2-20** North American Specification for the Design of Cold-Formed Steel Structural Members
- **AISI S240-20** North American Standard for Cold-Formed Steel Structural Framing
  - (Compliant to ASTM C955, but IBC replaced with AISI S200 in IBC 2015, AISI S240 in IBC 2018)
  - Section A3 Material - Chemical & mechanical requirements (Referencing ASTM A1003/A1003M)
  - Section A4 Corrosion Protection (Referencing ASTM A653/A653M)
  - Section C Installation - (Referencing ASTM C1007)
- **AISI S202-20** Code of Standard Practice for Cold-Formed Steel Structural Framing
  - Section F3 Delivery, Handling and Storage of Materials
- **IBC 2021** International Building Code
- **ICC-ES ESR-1166P** Structural Studs and Track
  - **ESR-1166P LABC and LARC** Supplement
  - **ESR-1166P Catalog** ClarkDietrich Structural Technical Design Guide (6/22/20)
- **Intertek CCCR-0206** Structural Studs and Track
- **SFIA Stud** Code Compliance Certification Program
- **SDS For ASTM A1003 Steel Framing Products** For Interior Framing, Exterior Framing and Clips/Accessories



#### Structural Punchout

##### East Coast / Central punch spacing:

Center of punchouts are  
12" from lead end, then 24" o.c.

##### West Coast punch spacing:

Center of punchouts are  
24" from lead end, then 24" o.c.

Center of tail end punchout not less  
than 12" from end of stud.

If lateral bracing is required for  
head-of-wall deflection track and a  
punchout is not spaced 12" from the top of  
stud, use strapping and blocking in lieu of  
CRC or Spazzer Bar lateral bridging.

If custom punchout patterns are required,  
contact ClarkDietrich Sales or local plant  
for requests.

**Sustainability Credits** For more details and  
LEED letters contact Technical Services at 888-437-  
3244 or visit [clarkdietrich.com/LEED](http://clarkdietrich.com/LEED).

- **LEED v4.1 MR Credit:** Environmental Product  
Declarations: EPD (1 point) - Sourcing of Raw  
Materials (up to 2 points) - Material Ingredients (1  
point) - Construction and Demolition Waste  
Management (up to 2 points)
- **LEED v4 MR Credit:** Building Product  
Disclosure and Optimization: EPD (1 point) -  
Sourcing of Raw Materials (1 point) - Material  
Ingredients (1 point) - Construction and  
Demolition Waste Management (up to 2 points) -  
Innovation Credit (up to 2 points).