

# PROJECT SUBMITTAL SHEET

FOR MORE INFORMATION OR QUESTIONS,  
PLEASE CONTACT THE TECHNICAL DEPARTMENT:  
EB METAL US: (855) 932-6382 | INFO@EBMETAL.US  
SUPER STUD: TECHNICAL@BUYSUPERSTUD.COM

## 400S125-21 (Standard Punch)

**Product Line:** 400NS125-21 NitroStud 21 mil (EQ20 ga.)

**Coating:** G40 (standard), G60 (special order)

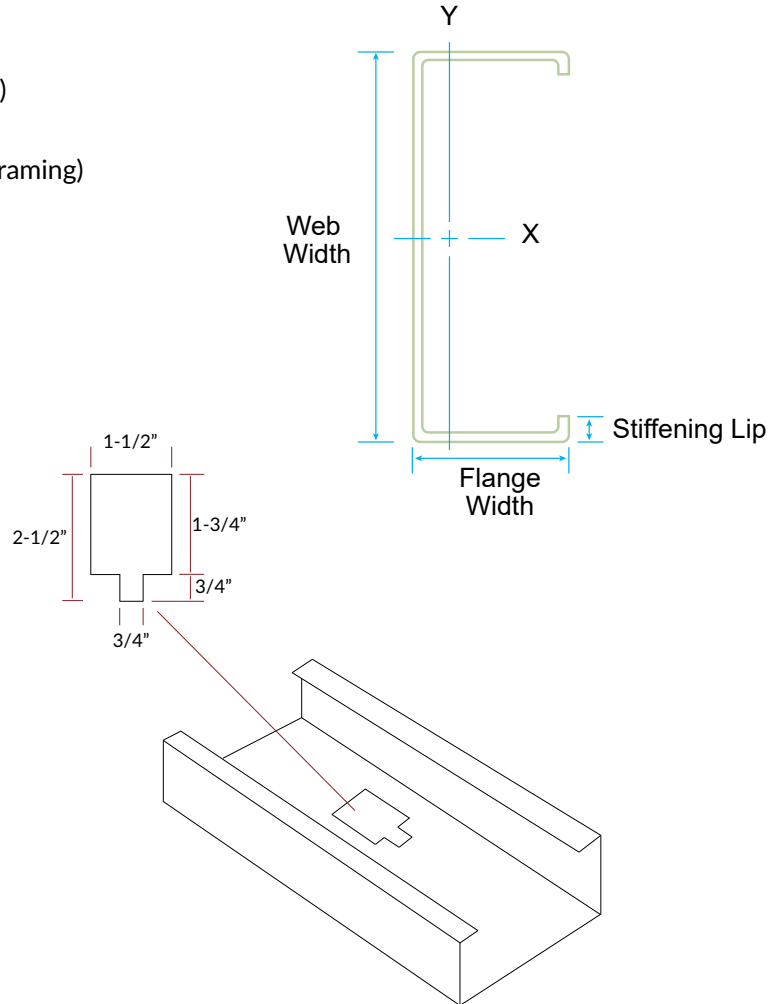
**Specification Section:** 09.22.16 (Non-Structural Metal Framing)

| GEOMETRIC PROPERTIES |          |                       |            |
|----------------------|----------|-----------------------|------------|
| Web Depth            | 4 in.    | Yield Strength, Fy    | 50 ksi     |
| Flange Width         | 1.25 in. | Design Thickness      | 0.0220 in. |
| Lip Length           | .25 in.  | Min. Design Thickness | 0.0209 in. |

| GROSS PROPERTIES                  |                                     |        |
|-----------------------------------|-------------------------------------|--------|
| Area (in <sup>2</sup> )           | Total cross-sectional steel area    | 0.151  |
| Weight (lb/ft)                    | Linear weight per foot              | 0.51   |
| I <sub>x</sub> (in <sup>4</sup> ) | Moment of inertia about the x-axis  | 0.3581 |
| S <sub>x</sub> (in <sup>3</sup> ) | Section modulus about the x-axis    | 0.1801 |
| R <sub>x</sub> (in)               | Radius of gyration about the x-axis | 1.5391 |
| I <sub>y</sub> (in <sup>4</sup> ) | Moment of inertia about the y-axis  | 0.025  |
| R <sub>y</sub> (in)               | Radius of gyration about the y-axis | 0.4063 |

| EFFECTIVE PROPERTIES               |                                      |        |
|------------------------------------|--------------------------------------|--------|
| I <sub>xe</sub> (in <sup>3</sup> ) | Effective moment of inertia (x-axis) | 0.279  |
| S <sub>xe</sub> (in <sup>3</sup> ) | Effective section modulus (x-axis)   | 0.1176 |
| M <sub>a</sub> (in-k)              | Allowable moment capacity            | 3.52   |
| M <sub>ad</sub> (in-k)             | Design moment capacity               | 3.52   |
| V <sub>ag</sub> (lb)               | Allowable web crippling              | 397    |
| V <sub>anet</sub> (lb)             | Net allowable shear                  | 337    |

| TORSIONAL PROPERTIES              |                                        |         |
|-----------------------------------|----------------------------------------|---------|
| J x 1000 (in <sup>4</sup> )       | St. Venant torsional constant          | 0.0244  |
| C <sub>w</sub> (in <sup>6</sup> ) | Warping constant                       | 0.0799  |
| X <sub>o</sub> (in)               | Distance from shear center to centroid | -0.7029 |
| m (in)                            | Torsional radius of gyration           | 0.3673  |
| R <sub>o</sub> (in)               | Polar radius of gyration               | 1.7401  |
| Beta                              | Torsional Flexural Constant            | 0.8368  |



### CODES AND STANDARDS:

**EB Metal US/Super Stud** products comply with the applicable provisions of the following:

- International Building Code (IBC): 2006 – 2024
- AISI S100-16 (2020) w/S2-20 and AISI S220-20
- Sheet steel: ASTM A1003/A1003M; ASTM A653/A653M
- Galvanized coating: ASTM A653/A653M or equivalent
- UL Designs: U411, U412, U419, U420, U425, U435, U451, U465, UL 263, CIKV.R38201, CIKV7.R38201
- Tested in accordance with ASTM E119; ANSI/UL 263
- Members and tolerances: ASTM C645; AISI S220, AISI S201, AISI S202
- Meets ASTM C754 when installed properly in structure.

**For LEED Letter requests please submit through:** [ebmetal.us](http://ebmetal.us). or [buysuperstud.com](http://buysuperstud.com)

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