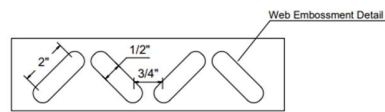
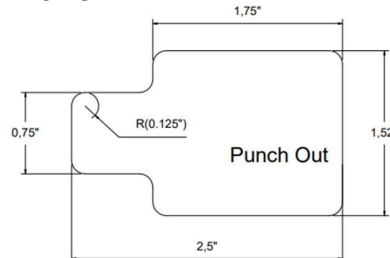
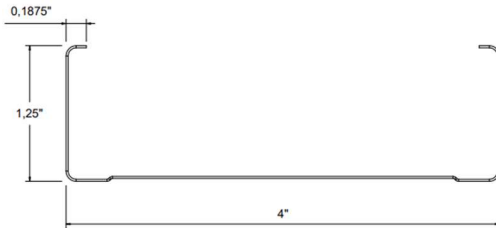


**Product Type:** Drywall Stud  
**Product Definition:** 400S125-33 33ksi  
**CSI Code:** 09.22.16.13



Embossments in web are only placed on sections 2-1/2" and wider.

## Profile Properties:

Web Depth	4,000 in
Flange Width	1,250 in
Stiffening Lip	0,1875 in
Design Thickness	0,0346 in
Minimum Thickness	0,0329 in

Yield Strength:	33 ksi
Unit Weight	0,77 lb/ft
Punchout Width / Length	Please see figure
Finish	G40
Color Coding	White

## Gross Section Properties:

Cross Sectional Area	Agross	0,2276 in <sup>2</sup>
Moment of Inertia, x-axis	Ix	0,5309 in <sup>4</sup>
Radius of Gyration, x-axis	rx	1,5274 in
Moment of Inertia, y-axis	Iy	0,0377 in <sup>4</sup>
Radius of Gyration, y-axis	ry	0,4071 in

## Torsional Properties:

St. Venant Torsion Constant	J x 1000	0,0908 in <sup>4</sup>
Warping Constant	Cw	0,1177 in <sup>6</sup>
Distance Between Shear Axis and Neutral Axis	x0	-0,7378 in
Polar Radius of Gyration	r0	1,7444 in
Torsional Flexural Constant	β	0,8211
Limit of Unbraced Length	Lu	36,95 in

## Effective Section Properties:

Effective Area	Aeff	0,2238 in <sup>2</sup>
Effective Moment of Inertia for Deflection	Ixe	0,5240 in <sup>4</sup>
Effective Section Modulus	Sxe	0,2589 in <sup>3</sup>
Allowable Bending Moment	Ma	4,0100 in.k
Allowable Shear Force	Vag	1007 lbs

## Codes & Standards:

- Calculations are based on AISI S220-20 and AISI S100-16.
- Complies with IBC2021, ASTM C645, ASTM C754, ASTM A653, ASTM A1003, ASTM E72
- Intertek Certificate of Compliance No: COC-WHI23-37729201
- LEED / Sustainability Credits: Environmental Product Declaration S-P Code: S-P-00869

## Limiting Heights, Non Composite (ft-in):

Profile	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
12	22' - 8"	19' - 1"	16' - 8"	18' - 9"	16' - 8"	14' - 7"	16' - 5"	15' - 2"	13' - 3"
16	19' - 10"	17' - 4"	15' - 2"	16' - 5"	15' - 2"	13' - 3"	14' - 3"	13' - 9"	12' - 0"
24	16' - 5"	15' - 2"	13' - 3"	13' - 6"	13' - 3"	11' - 7"	11' - 9"	11' - 9"	10' - 6"

- Heights are based on AISI S220-20 and AISI S100-16, using steel properties alone.
- Above listed Non-Composite Limiting Heights are applicable when the unbraced length is less than or equal to  $L_u$ . Heights are limited by moment, deflection and shear.

## Limiting Heights, Composite – Fully Braced (ft-in):

Profile	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
12	25' - 3"	20' - 1"	17' - 6"	22' - 1"	17' - 6"	15' - 4"	20' - 1"	15' - 11"	13' - 11"
16	22' - 11"	18' - 3"	15' - 11"	20' - 1"	15' - 11"	13' - 11"	18' - 3"	14' - 5"	12' - 7"
24	20' - 1"	15' - 11"	13' - 11"	17' - 3"	13' - 11"	12' - 0"	15' - 0"	12' - 7"	10' - 9"

- The composite limiting heights are taken from ASTM C754-20 and based on a single layer of 5/8" Type X gypsum board to each stud flange.
- The gypsum board must be applied full height in the vertical orientation in accordance with ASTM C754 using minimum No. 6 Type S Drywall screws.
- Screws shall be spaced a maximum of 16 in on-center to framing members (including top & bottom track] spaced at 16 in or 12 in on-center.
- Screws shall be spaced a maximum of 12 in on-center to framing members (including top & bottom track] spaced at 24 in on-center.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754.
- Stud end bearing must be a minimum of 1 inch.

