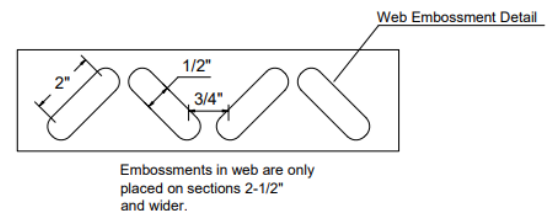
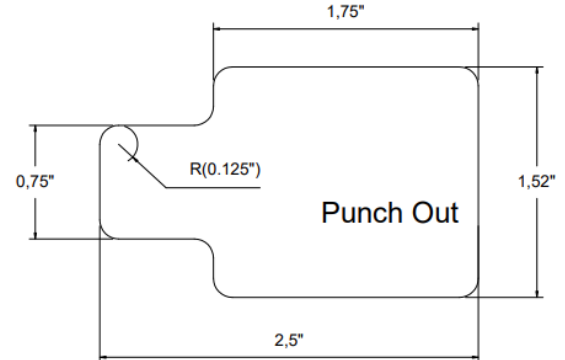
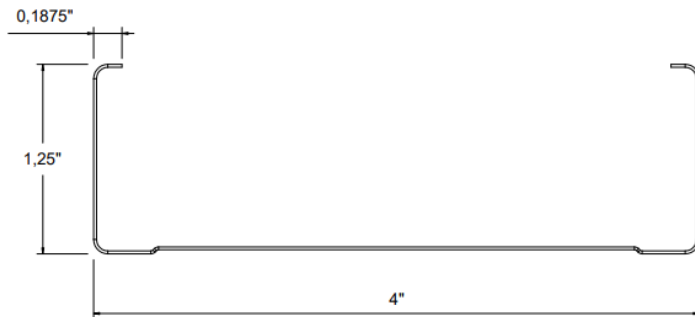


Product Type: Drywall Stud

Product Definition: 400S125-18 33ksi

CSI Code: 09.22.16.13



Profile Properties:

Web Depth 4,000 in
 Flange Width 1,250 in
 Stiffening Lip 0,1875 in
 Design Thickness 0,0188 in
 Minimum Thickness 0,0179 in

Yield Strength: 33 ksi
 Unit Weight 0,43 lb/ft
 Punchout Width / Length Please see figure
 Finish G40
 Color Coding

Gross Section Properties:

Cross Sectional Area	Agross	0,1256 in ²
Moment of Inertia, x-axis	Ix	0,2967 in ⁴
Radius of Gyration, x-axis	rx	1,5372 in
Moment of Inertia, y-axis	Iy	0,0208 in ⁴
Radius of Gyration, y-axis	ry	0,4067 in

Torsional Properties:

St. Venant Torsion Constant	J x 1000	0,0148 in ⁴
Warping Constant	Cw	0,0625 in ⁶
Distance Between Shear Axis and Neutral Axis	x0	-0,7190 in
Polar Radius of Gyration	r0	1,7449 in
Torsional Flexural Constant	β	0,8164
Limit of Unbraced Length	Lu	31,13 in

Effective Section Properties:

Effective Area	A _{eff}	0,1159 in ²
Effective Moment of Inertia for Deflection	I _{xe}	0,2698 in ⁴
Effective Section Modulus	S _{xe}	0,1270 in ³
Allowable Bending Moment	M _a	2,1202 in.k
Allowable Shear Force	V _{ag}	158 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	14' 10"	14' 10"	13' 5"	12' 3"	12' 3"	11' 9"	10' 8"	10' 8"	10' 8"
16	12' 11"	12' 11"	12' 3"	10' 8"	10' 8"	10' 8"	9' 3"	9' 3"	9' 3"
24	10' 8"	10' 8"	10' 8"	8' 9"	8' 9"	8' 9"	7' 7"	7' 7"	7' 7"

- 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	19' 3"	17' 6"	15' 4"	15' 9"	15' 4"	13' 4"	13' 8"	13' 8"	12' 2"
16	16' 8"	15' 11"	13' 11"	13' 8"	13' 8"	12' 2"	11' 10"	11' 10"	11' 0"
24	13' 8"	13' 8"	12' 2"	11' 2"	11' 2"	10' 7"	9' 8"	9' 8"	9' 7"

- 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.